ALL ABOUT HISTORY

9/11 20 YEARS ON

REIGN TERROR

Why did France's revolution turn into anarchy and bloodshed?

CHINA'S SHADOW EMPRESS

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10 WEIRDEST BIBLE STORIES

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From horseless carriage to street racer

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Uncover the wonder of the Gothic world

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ISSUE 108

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Marie Antoinette prepares for her execution on the scaffold

Welcome

At what cost do we bring about change? That seems like a pretty pervasive question for humanity. It's likely one of the major reasons why many people resist a change, even if they think it will be beneficial to them in principle. What will it cost? It's a concern made all the more understandable when you look at the events that followed the French Revolution. The overthrow of the monarchy to install a democratically elected government should, in principle, have meant good things for the people of France (or at least the men of France who were given the universal right to vote from 1792). It should have brought an end to corrupt government and the consolidation of wealth among the aristocracy, and in many ways it did. But who could have foretold the violence and recrimination that would follow?

It's those events, known as the Reign of Terror, that we wanted to take a closer look at this issue. How did things escalate to such an extent? Who was responsible for the violence? Was this turn of events somehow inevitable? We look to answer all of these questions and more.

Also this issue we reflect on the events of 11 September 2001, which took place 20 years ago this month. It's an event that has defined the beginning of the 21st century, but we wanted to return to focus on the people whose lives were lost or put on the line to save others on that fateful day.

Jonathan Gordon
Editor

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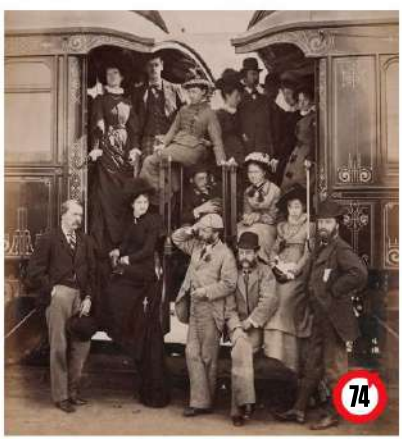

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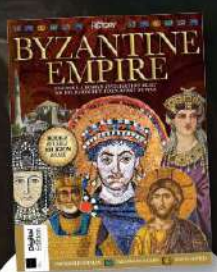
Jacques-Louis David depicted drawing the scene of Marie Antoinette's execution in 1793



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Reign of Terror

Why did France's revolution turn into anarchy and bloodshed?

Defining Moments

22-28 September 1950

THE SECOND BATTLE OF SEOUL

Two weeks after securing victory at the Battle of Inchon, United Nations forces successfully recapture Seoul from the North Koreans. The South Korean capital had been invaded by the North three months earlier, and the progress from Inchon to Seoul by UN troops was slow and resulted in heavy casualties.

10 September 1960

ABEBE BIKILA WINS OLYMPIC GOLD

At the Summer Olympics in Rome, Ethiopian Abebe Bikila becomes the first East African to win a gold medal, winning the men's marathon. An unknown athlete at the time, he ran the entire race barefoot. He retained his title at the 1964 Olympics, becoming the first athlete to win consecutive Olympic marathons.

11
185

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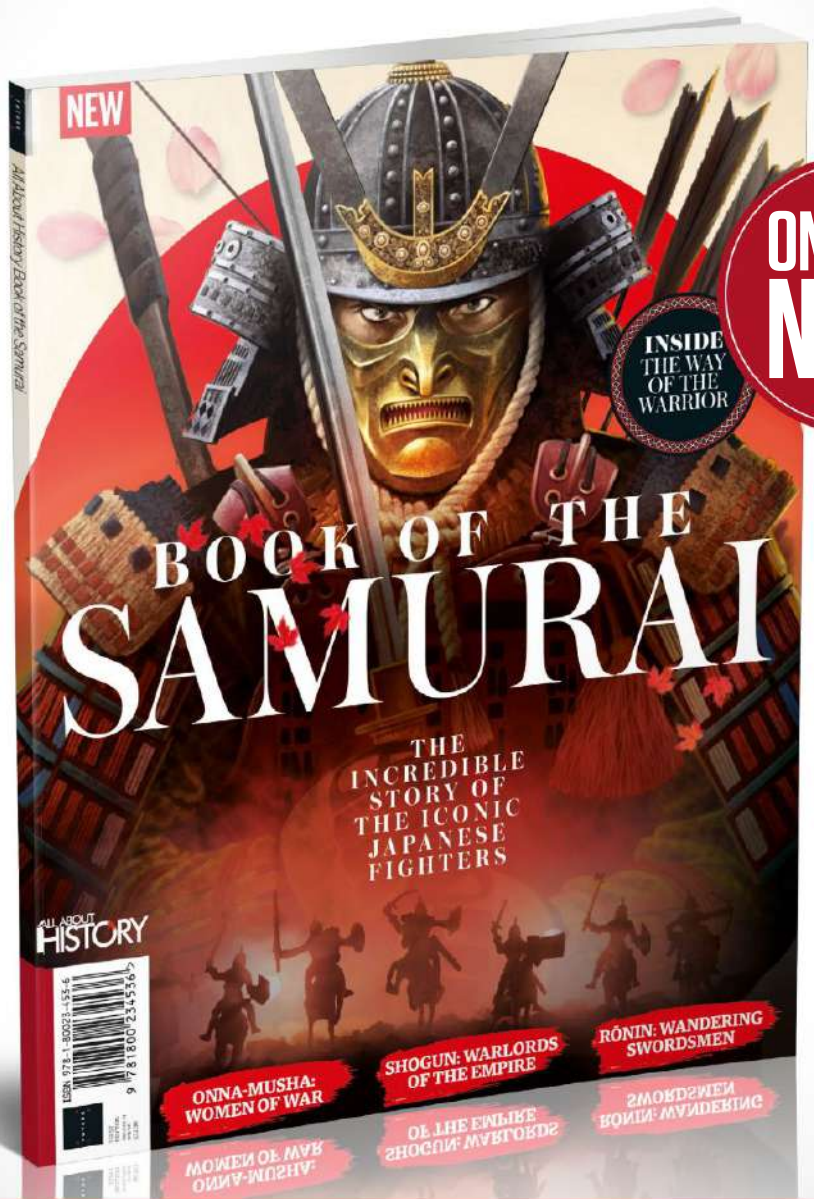

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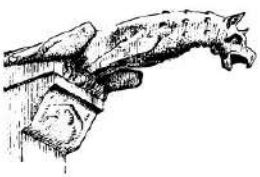

This artistic movement shaped Europe and left us with some of our most iconic works of art and architecture

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18 MAKERS OF THE GOTHIC MOVEMENT

20 SECRETS OF GOTHIC SCULPTURE

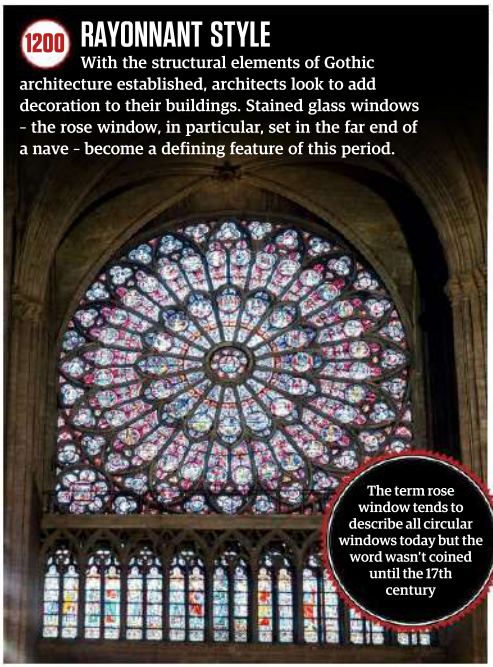
Main image source © Getty Images

Written by Jessica Leggett, David Crookes, Ben Gazur, James Cameron

Key Events

1200 RAYONNANT STYLE

With the structural elements of Gothic architecture established, architects look to add decoration to their buildings. Stained glass windows – the rose window, in particular, set in the far end of a nave – become a defining feature of this period.



The term rose window tends to describe all circular windows today but the word wasn't coined until the 17th century

1245 REBUILDING WESTMINSTER ABBEY

Commissioned by Henry II to honour Edward the Confessor and as a regal setting for his own tomb, Westminster Abbey is rebuilt in a Gothic style but with single rather than double aisles. At 31 metres tall, it's England's highest Gothic vault.

SEEKING A SOLUTION 1120

Romanesque buildings with semi-circular arches need thick walls for support. Medieval masons switch to pointed arches upon more slender columns, allowing for greater widths and heights.

FLYING BUTTRESSES 1160

Flying buttresses (an inclined beam on a half-arch projected from the walls, adding weight support) become popular. Notre-Dame de Paris, built from 1163, has them.

GOTHIC PAINTINGS 1210

Around this time, Gothic architecture begins to influence painting, gradually depicting figures in animated, emotive, natural and relaxed poses, with great detail and decoration.

1140 — 1200 — 1245

JAMB STATUES 1144

By the time the Basilica of Saint-Denis is complete, it has jamb figures of *Old Testament* royalty carved on the west facade. Such figures become commonplace in the jambs of doorways or windows.

REBUILDING CANTERBURY CATHEDRAL 1174

Gothic influence spreads from France. When the quire of England's Canterbury Cathedral is damaged by fire, it's rebuilt with pointed arches, flying buttresses and rib vaulting.

IVORY CARVINGS 1230

Elephant tusks become highly prized around this time, with carvings popular among artists and patrons. Statuettes, panelled objects such as diptychs and personal items are made from ivory.

1140 THE FIRST GOTHIC BUILDING

Having decided to rebuild parts of an abbey church north of Paris, Abbot Suger defines Gothic architecture. The new eastern end of the Basilica of Saint-Denis is tall and filled with light via large stained glass windows. There's a pointed arch and a ribbed vault.

1284 COLLAPSE OF A CATHEDRAL

At 47.5 metres high, the nave of Saint-Pierre de Beauvais becomes the tallest of all the Gothic cathedrals but some of the vaulting in the choir and some of the flying buttresses collapse. It's rebuilt, but the desire to build ever higher wanes.

All images: © Alamy

1746 THE GOTHIC REVIVAL

There's a Gothic Revival in England that grows in popularity in the Western world over subsequent decades. Sir Charles Barry designs the Palace of Westminster, London, and Manchester's Town Hall (begun in 1868) has tall arched windows and low rib vault ceilings.

Manchester Town Hall may have been influenced by the past but its warm air heating system looked to the future.

BOOKS OF HOURS 1250

Compendiums of prayers begin to be used by laypeople in honour of the Virgin Mary and they contain lavish Gothic illustrations, often drawing upon contemporary architecture.

FLAMBOYANT ARCHITECTURE 1350

Developed in the Late Middle Ages and Renaissance, Flamboyant Gothic is a flowery decorative style hallmarked by S-curved tracery and patterns of double curving.

LATE GOTHIC PERIOD 1468

Architects in southern Germany and Austria experiment with Gothic style and develop hall churches where the nave and side aisles are of roughly equal height. Munich's Frauenkirche is one example.

1284 — 1436 — 1515 — 1746

PERPENDICULAR STYLE 1335

England continues to develop its own Gothic architecture. Gloucester Cathedral is the oldest example of the perpendicular style. It has large windows and fan vaulting in the cloisters.

INTERNATIONAL GOTHIC 1412

International Gothic created a pan-European art style popular among the Continent's royal families. Examples include the Limbourg brothers' *Les Très Riches Heures du Duc de Berry.*

COINING A PHRASE 1550

The term 'Gothic architecture' was only coined amid the shift towards Renaissance architecture. Italian painter and architect Giorgio Vasari associated it with the 'barbaric' German style.

1436 ITALIAN GOTHIC STYLE

Gothic architecture spread to Italy in the 12th century and, for many decades, monks of the Cistercian Order banned decoration. Florence Cathedral initially has a plain exterior but there are wide pointed Gothic arches separating the nave and aisles as well as round clerestory windows, typical of Italian Gothic.

The use of buttresses was forbidden in Florence, hence the building of the cathedral's dome.

1515 TIME TO LEARN

Across Europe, the Gothic style is widely used for university buildings. In England, King's College Chapel, Cambridge, boasts the largest fan vaulting in the world and floor-to-ceiling glass walls. A large wooden screen is an example of early Renaissance architecture, however.

NOTRE-DAME DE PARIS

Paris, France
1163 – present

In a city boasting the Eiffel Tower, the Louvre Museum and the Arc de Triomphe, Notre-Dame has nevertheless managed to hold its own. Before it was ravaged by the fire of 15 April 2019, which destroyed its spire and melted the roof, this fine example of Gothic architecture was welcoming 13 million visitors each year, making it Paris' number one tourist attraction.

The construction of Notre-Dame on the Ile de la Cité began in 1163 under Bishop Maurice de Sully and it was completed in 1345. Given this lengthy timeframe, it was a construction project that evolved over the years – the rose windows being added later in the 13th century, for example.

But even when it was thought to be finished, architects added their own stamp over the following centuries. The roof was modified in 1726 by the archbishop of Paris Louis Antoine de Noailles, for instance, and stained glass was removed in 1756 to allow for more light, leaving only the rose windows intact.

The cathedral has also been well-used. It was where Henry VI was crowned king of France, aged 10, in 1431 and where James V, king of Scotland, married Madeleine of Valois in 1537. Pope Pius VII crowned Napoleon Bonaparte emperor there in 1804 while Pope Pius X beatified Joan of Arc in 1909 for her role in the Hundred Years' War. And yet it's had its fair share of trouble, not least during the French Revolution of 1787 to 1799 when it was terribly ransacked.

It was Victor Hugo's 1831 novel, *The Hunchback of Notre-Dame*, which shone a light on the poor state of the cathedral, leading to its Gothic-sympathetic restoration 10 years later. Dishearteningly, it was then set alight by bombs during World War I. But it's this cycle of destruction and restoration that has kept this cathedral alive. It will bounce back from the terrible events of 2019, undoubtedly ready for whatever comes next.

TWO TOWERS

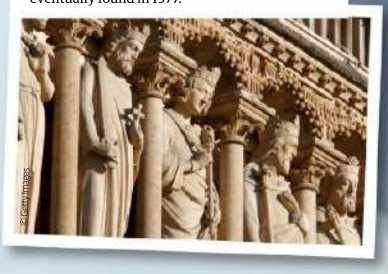
The western façade of Notre-Dame is dominated by two impressive bell towers – north and south – both of which are 69 metres tall and were completed 10 years apart (1240 and 1250, respectively). They contain 10 church bells between them, the oldest being the bourdon Emmanuel, a 13-ton bell that was cast in 1686. Climbing to the top entails traversing spirals of 387 steps.

GALLERY OF THE CHIMERAS

Sitting on top of the Colonnade is a gallery of chimeras – mythical creatures used purely for decorative purposes (unlike gargoyles, which also drain water). Numbering 54 in all, these amazing adornments were added during Eugène Viollet-le-Duc's restoration work in the mid-19th century in collaboration with sculptor Victor Joseph Pyanet, who wanted them to look realistic.

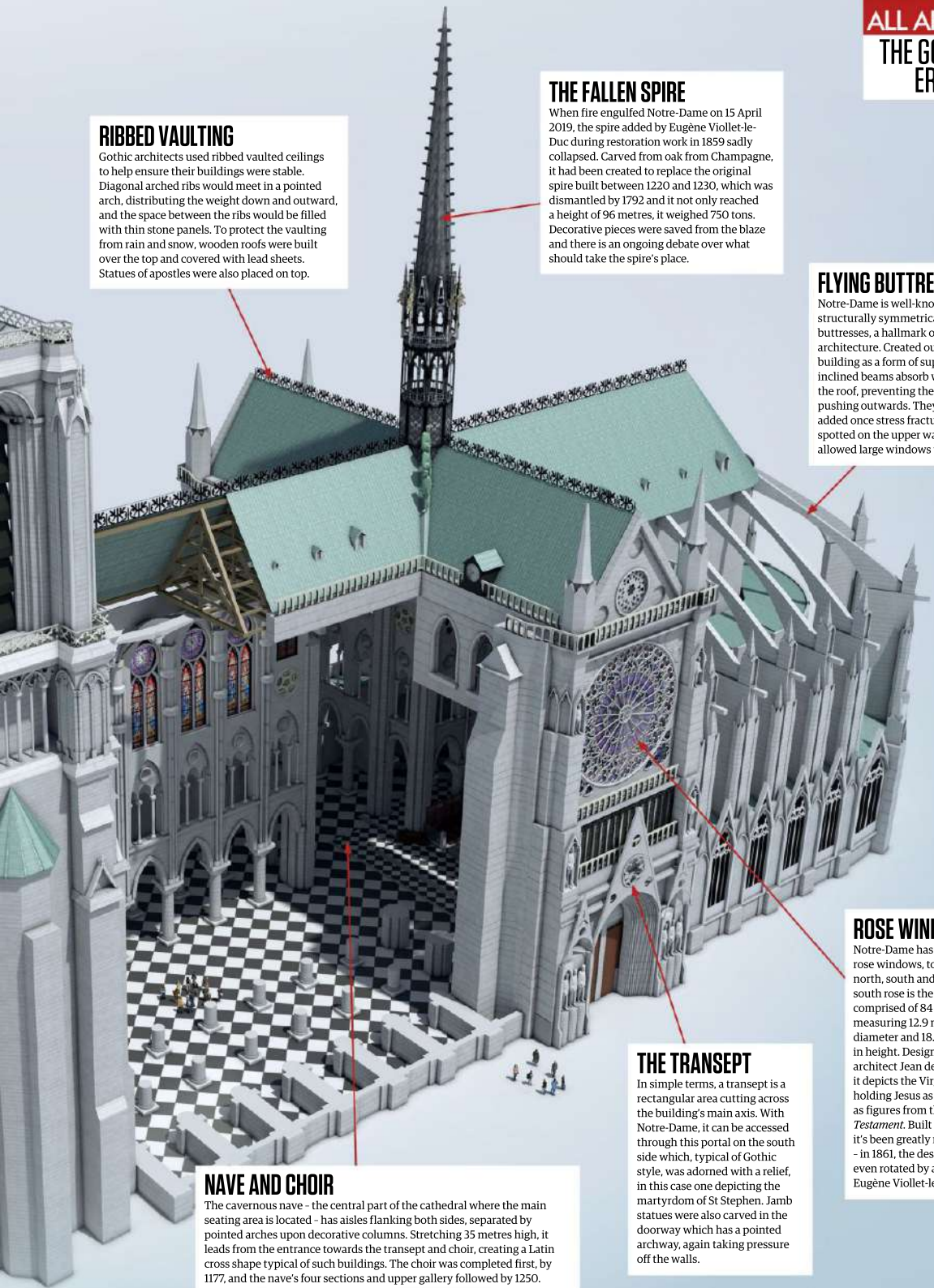
GALLERY OF KINGS

Beneath the Virgin's Gallery on the western façade (location of the 10-metre-diameter western rose window and two stained-glass lancet windows) is the Gallery of Kings consisting of 28 statues of the kings of Judah. Most of the originals (sculpted between 1200 and 1240) were beheaded by French revolutionaries in 1793, believing them to be kings of France. They were replaced during the 19th century restoration, with 21 heads and 350 fragments from other damaged statues eventually found in 1977.



THE WESTERN PORTALS

These doorways – or portals – are highly decorative and they depict various religious scenes. The left-side Portal of the Virgin shows Mary's ascension to heaven and her coronation by an angel. The middle Portal of Last Judgment (the last to be created and the largest) shows Christ on the throne of glory. On the right is the Portal of St Anne depicting Christ's childhood. All were completed by the 1230s.



RIBBED VAULTING

Gothic architects used ribbed vaulted ceilings to help ensure their buildings were stable. Diagonal arched ribs would meet in a pointed arch, distributing the weight down and outward, and the space between the ribs would be filled with thin stone panels. To protect the vaulting from rain and snow, wooden roofs were built over the top and covered with lead sheets. Statues of apostles were also placed on top.

THE FALLEN SPIRE

When fire engulfed Notre-Dame on 15 April 2019, the spire added by Eugène Viollet-le-Duc during restoration work in 1859 sadly collapsed. Carved from oak from Champagne, it had been created to replace the original spire built between 1220 and 1230, which was dismantled by 1792 and it not only reached a height of 96 metres, it weighed 750 tons. Decorative pieces were saved from the blaze and there is an ongoing debate over what should take the spire's place.

FLYING BUTTRESSES

Notre-Dame is well-known for its structurally symmetrical flying buttresses, a hallmark of Gothic architecture. Created outside the building as a form of support, these inclined beams absorb weight from the roof, preventing the walls from pushing outwards. They were only added once stress fractures were spotted on the upper walls but they allowed large windows to be created.

ROSE WINDOWS

Notre-Dame has three rose windows, to the north, south and west. The south rose is the largest, comprised of 84 panes and measuring 12.9 metres in diameter and 18.9 metres in height. Designed by architect Jean de Chelles, it depicts the Virgin Mary holding Jesus as well as figures from the *Old Testament*. Built in 1260, it's been greatly restored – in 1861, the design was even rotated by architect Eugène Viollet-le-Duc.

THE TRANSEPT

In simple terms, a transept is a rectangular area cutting across the building's main axis. With Notre-Dame, it can be accessed through this portal on the south side which, typical of Gothic style, was adorned with a relief, in this case one depicting the martyrdom of St Stephen. Jamb statues were also carved in the doorway which has a pointed archway, again taking pressure off the walls.

NAVE AND CHOIR

The cavernous nave – the central part of the cathedral where the main seating area is located – has aisles flanking both sides, separated by pointed arches upon decorative columns. Stretching 35 metres high, it leads from the entrance towards the transept and choir, creating a Latin cross shape typical of such buildings. The choir was completed first, by 1177, and the nave's four sections and upper gallery followed by 1250.

Illustration by Adrian Mann

GOTHIC NOBLEWOMAN

Europe
c.14th – 15th centuries

DISTINCTIVE HEADWEAR

Noblewomen always wore a headdress, such as this heart-shaped escoffion that was worn by notable figures such as Queen Isabeau of Bavaria, wife of King Charles VI of France. Another type of headdress that was often worn was the steeple-shaped hennin that could be worn with a veil.

HEIGHT OF FASHION

A large, high forehead was considered very attractive and desirable during the medieval period. Headdresses were designed to show off the forehead, and many women would even pluck or shave their hairlines to exaggerate it further.

FITTING IN

Fashion has always played an important role throughout history as an indicator of wealth and social status, and this was no different in the Gothic era. In general, style changed rapidly during the 14th and 15th centuries, partly due to the political upheaval caused by the Hundred Years' War.

A POPULAR TREND

Both women and men wore a long garment called the houppelande. It was characterised by fitting tightly at the shoulders, with a high collar, voluminous skirt and tubular folds. Women wore full-length houppelandes and the wealthy often made their gowns extra-long so that they trailed on the floor.

LITTLE DETAILS

Women always wore a long underrobe underneath their houppelande, which was an overgown. Houppelandes had a fitted waist that was emphasised with an ornate fabric belt. While men wore their belts at their natural waistline, women wore theirs below the bust.

DISPLAYING WEALTH

Houppelande gowns had long flared sleeves that varied in style over time. For example, sleeves were often decorated with dagged edges. Only the wealthiest women could afford to trim the sleeves and hems of their gowns with expensive ermine fur, which also helped to keep them warm.

EXPENSIVE MATERIALS

For noblewomen, houppelandes were typically made from sumptuous fabrics such as brocade, velvet or silk, which were sometimes decorated with embroidery. The lining of the gown would often be a different colour to provide a bright contrast.

Illustration by Kevin McGivern

Historical Treasures

BOXWOOD MINIATURE PRAYER BEAD

These carvings are a fine example of Gothic craftsmanship Netherlands, early 16th century

While the grand scale of Gothic architecture is the most prominent example of the intricacies and detailed work of artists and architects of the era, smaller works could be even more remarkable in the right hands. Boxwood Miniatures, which are believed to have originated in the Netherlands, show just how fine and complex these works could become, spinning out from the same aesthetics as grand cathedrals. The intricate and rich designs on such a small scale are an incredible example of the craftsmanship and skill that existed in the early 16th century.

Dozens of these carved wooden objects have survived and the detail of them is remarkable even by modern standards, let alone using the tools available at the time. Small chisels, a foot-powered lathe and, most likely, a magnifying glass, would need to be utilised to achieve this end result. It's thought that most were made between 1500 and 1530, and while some variation in quality between them suggests more than one person made them all, it's possible they all came from the same workshop led by an artisan who had the skill to make the most impressive pieces. However, their identity remains a mystery that experts are still trying to solve.

The miniatures come in a number of forms, such as medallions, altarpieces, a knife, and prayer beads such as the one shown here. This would have actually sat along a string of similar beads, all of which would have been carved with geometric patterns around the outside and many likely opening up like this one to reveal religious scenes within. Such items vary in size, although this one is about six centimetres tall when closed, about the size of a standard pool ball, while it stands around 11 centimetres tall when open. Some are as small as five centimetres in diameter. Such carvings were prized items and understandably expensive, reserved for the rich and powerful of Europe. In fact, Henry VIII and Catherine of Aragon were gifted a full set of prayer beads just like this, which survives to this day.

GOOD WOOD

The wood used for these carvings was Boxwood, or Buxus sempervirens, which is a fine-grained wood. This is perfect for fine-detail carving as you can work with and against the grain with less risk of the wood breaking.

MADE IN PIECES

While some examples of Boxwood Miniatures might be carved from a single piece of wood, more complex objects like this bead would be made in parts, The outer shells would be carved separately from the inner scene, allowing even finer detail to be achieved.

FINE DETAILS

The level of detail achieved in this piece, which is only about six centimetres wide, is amazing. You can see brickwork, the manes of the horses and lots of different surface textures. Other examples can even show individual feathers on birds and skin textures on animals.

BIBLE SCENES

Most of the scenes in these items are taken directly from the *Bible*. In this instance, when open, we see the Nativity, the journey of the Magi, baby Jesus at the Temple of Jerusalem and the Crucifixion. When the small doors are closed, we see Adam and Eve depicted in Eden.

Image source: The Metropolitan Museum of Art

MAKERS OF THE GOTHIC MOVEMENT

Ten people who, through their power, influence, ambition and skill, shaped the artworks of the European Middle Ages

Abbot Suger of Saint-Denis

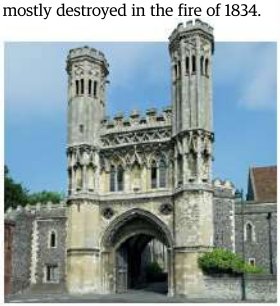
Northern France
c.1081-1151

Although not a great theologian or designer, Suger is inexorably linked with the development of Gothic architecture and an early appreciator of its aesthetics. Of obscure background, in 1091 aged ten he joined the monastery of Saint-Denis near Paris and was appointed abbot in 1122. Suger's flair for administration made him the ideal figure to oversee the logistics of rebuilding his abbey, and is depicted multiple times in the stained glass. The consecration of the new church in 1141 inspired bishops and their chapters all around France to rebuild their cathedrals with glazed clerestories supported by flying buttresses.

MICHAEL OF CANTERBURY

KENT, ENGLAND, C.1275-C.1321

An architect, his gatehouse for the abbey of St Augustine in Canterbury (c.1308) demonstrates his knowledge of French Rayonnant forms and his deployment of multiple contrasting modes on a single monument. He was one of the masters who worked on the series of Eleanor Crosses in memory of the queen of King Edward I, although his cross at Cheapside is lost. His most influential work was the chapel at the Palace of Westminster, mostly destroyed in the fire of 1834.



GIOTTO DI BONDONE

VESPIGNANO, ITALY
C.1267 OR 1276 – 1337

Somewhat of a celebrity of his time and considered to be the first of the great Italian masters, the actual path of Giotto di Bondone's rise to fame is difficult to trace. It is most likely that he trained in Rome, where he was commissioned by Cardinal Jacopo Stefaneschi to make the Navicella mosaic for the courtyard in front of the basilica of Old St Peter's, possibly for the jubilee of 1300. His masterwork, the Scrovegni Chapel at Padua, was completed in 1303-5. Di Bondone's works paved the way for the Renaissance style.

Giotto was appointed as capomaestro of Florence Cathedral in 1334, where he designed and partly oversaw the construction of its campanile.

Andrea di Cione

Florence, Italy
c.1315-68

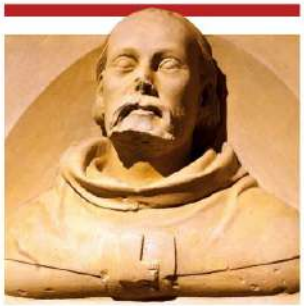
Andrea di Cione, often called 'Orcagna', was perhaps the most important artist in Florence working after the Black Death of 1348. He was primarily a painter, but his most important work is the tabernacle of Orsanmichele, commissioned 1352 by a religious fraternity to hold a miracle-working painting. Orcagna joined the guild of stonemasons to take the commission. From 1357 he became capomaestro for the cathedral, realising one of the largest churches in the world.

The tabernacle of Orsanmichele, Florence, has at least 117 figural reliefs and statues, including scenes of the life of the Virgin.

Allimages: © Alamy

PIERRE DE MONTREUIL
NORTHERN FRANCE, C.1200-67

One of the first named architects of northern France, and an important figure in the refinement of the sophisticated Gothic style of the Parisian Rayonnant. His key work, the refectory and attached chapel of the Virgin built in the 1240s for the Abbey of Saint-Germain-des-Prés, were unfortunately demolished around 1800. He largely oversaw the construction of the south transept front of Paris Notre-Dame Cathedral after the death of the master Jean de Chelles in 1258.



PETER PARLER
GERMANY, 1330-99

Parler was the most renowned of a family of German architects and sculptors. He was appointed in 1356 by the Holy Roman Emperor Charles IV in Prague as the master mason of St Vitus Cathedral at the age of just 23. Parler's inventive capabilities ensured that Charles' new imperial capital had an outstanding cathedral. Although he almost certainly never went to England himself, he was abreast of some of the most sophisticated devices that had been pioneered there in the first part of the 14th century, such as seemingly gravity-defying 'flying' ribs and elaborate net-vaults.

Simone Martini
Siena, Italy, c.1284-1344

The innovative Sienese painter's first documented work is the enormous fresco of the Virgin enthroned in the Siena Palazzo Pubblico, completed 1315. The St Martin chapel at the basilica of St Francis, Assisi, followed in the next five years. Both of these works show remarkable knowledge of French Gothic architecture, something also seen in his great polyptych for the Dominicans in Pisa (1320), which is filled with saints like a Gothic cathedral facade.

Martini's final decade was spent at the Papal court in Avignon, where he painted the exquisite *Christ and His Parents*, now in the Walker Art Gallery, Liverpool.

Blanche of Castile, Queen of France
Palencia, Spain 1188 – 1252

Queen of King Louis VIII of France (r.1223-6) and mother of Louis IX, she was regent of the kingdom during her son's minority and his time on the Sixth Crusade, and was heavily involved with shaping the choices of the French Crown's patronage. A lavishly gilded page of a Moralised Bible shows her enthroned, actively gesturing alongside her more passive son, while below a cleric commands an illustrator to create the manuscript itself. This eloquently represents the collaborative nature of royal patronage that realised works as diverse as the Cistercian Abbey of Royaumont (founded 1228) and glazing at Chartres Cathedral (1216-20).

VEIT STOSS
SWABIA, GERMANY, C.1445-1533

One of the best-documented late medieval sculptors, in 1477 he moved from Nuremberg to Kraków, Lesser Poland, probably for the commission of his most famous work: the great altarpiece for the town's main parish church of St Mary. Also while in Kraków, Stoss undertook the prestigious commission of the tomb of King Casimir IV (1427-92) for the Wawel Cathedral from polished red limestone.

ARCHBISHOP ANSELM OF CANTERBURY
AOSTA, UPPER BURGUNDY
C.1033 – 1109

Anselm was the inaugurator of the great extension of Canterbury Cathedral in the early 12th century. The 'glorious choir' (gutted in 1174 and subsequently rebuilt) made the cathedral into one of the longest buildings in the world, equal with the Basilica of Old St Peter's in Rome. The building had uniquely large windows that were designed to take expanses of coloured glass, heralding the Gothic style. The complex schemes of biblical typologies were no doubt conceived by Anselm himself.

Q&A

SECRETS OF GOTHIC SCULPTURE

Professor Jacqueline E Jung reveals the role of sculptures for people in the Gothic world

Where and when did Gothic sculpture first appear?

The designation 'Gothic' is a modern concept; it's helpful to art historians, who want to distinguish this kind of imagery from Classical, Romanesque, and Renaissance art. Those who commissioned, created and observed this statuary would have simply thought of it as new, and Christian – and, very probably, as French!

What we call Gothic sculpture emerged in tandem with the new cathedrals displaying a modern, intentionally non-Classical style – pointed arches, rib-vaults, flying buttresses, improbable heights, thin walls, and so forth. These arose first in northern France, in and near Paris, starting in the 1130s-40s. Like many earlier pilgrimage churches, the new churches at Saint-Denis, Chartres, Paris (Notre-Dame), Sens and elsewhere used their western facades as the primary showpiece for visitors, and the portals leading into the church were embellished with sculpted imagery. A lot of Gothic sculpture is portal sculpture, though we find important figural programmes on towers, buttresses and even within buildings, as patrons and artists in and beyond France adapted the style to their own needs throughout the 13th century.

Jacqueline E Jung is Professor of the History of Art at Yale University, specialising in Gothic art and architecture. She is the author of *The Gothic Screen: Space, Sculpture, and Community in the Cathedrals of France and Germany, ca. 1200-1400* (Cambridge University Press, 2013).

BELOW Flying buttresses are a typical feature of Gothic architecture

Headshot source: Michell Matback

What are the defining characteristics of Gothic sculpture?

Sculptural programmes on Gothic cathedrals were vastly expanded in comparison to earlier examples; they extended across the entire façade and encompass three or more main doors. They typically use a standard compositional formula – with a tympanum (an arched surface crowning the door openings) containing narrative reliefs; little rows of figures filling the archivolts (arched framing bands) around and above the tympanum; life-sized or larger human figures in the jambs (the vertical strips flanking the door opening); and sometimes smaller relief figures aligned in the imposts immediately next to the doors and in the dado level (the flat surfaces closer to the ground, under the jambs). The subject matter of these sculptures corresponded to the placement of the figures, with a thematic ascent as you look from bottom to top.

At the same time, we see a pronounced interest in naturalistic, humanised depictions of figures. In the proportions of the bodies, the way draperies hang from their limbs, the liveliness and expressive character of their faces, and their engaging gestural language, both large- and smaller-scale figures show a distinct interest in forging connections with their audiences. They present themselves as real people – larger-than-life people, to be sure, and probably more elegantly dressed than most ordinary folks, but relatable as human characters.

What was the purpose of Gothic sculpture at this time?

From the beginning, Christians had been suspicious of images leading people into idolatry, so it's surprising that medieval Christian churches were packed with images. In the earlier Middle Ages there were lots of wall paintings, mosaics, and textiles, and in Gothic centuries glass joined sculpture as a favoured medium for pictorial content. Church authorities recognised that images could serve as important teaching tools for a broad public that had little access to, or use for, written Latin texts. Sculpture communicated information to large audiences about Christian sacred history. In many cases, the imagery of saints on Gothic portals often corresponded with relics and shrines housed within the building, so the portal programmes could be considered a large-scale advertisement for the church's spiritual resources.

Cathedral sculptures also brought the stories and characters to life in powerful new ways, through the way the stories were organised and in the naturalistic composition of the figures. The figures typically wear 13th-century clothing and hold attributes or other props familiar to contemporary audiences. These sculptures didn't just remind people of past events; they brought the past into the present and made it vivid and accessible to anyone approaching the church. They testified to the Christian tradition's abundance of edifying stories and exemplary individuals, as well as the respective church's incredible economic and creative resources.

What effect were these sculptures meant to have on the audience that was viewing them?

We can only speculate, but the proliferation of sculptural programmes throughout Europe during the 13th century indicates that this type of art held great appeal for clerical patrons and their anticipated audiences. Certain exemplary tales recounted by preachers give hints about people's responses; for example, the vivid depictions of terrified sinners going into hell in Last Judgment scenes seem to have struck fear into the hearts of many lay viewers. But the Last Judgment theme also promised that, with the help of the church's sacraments, they could wind up on the right side, in heaven. The sculpted male and female saints stood as role-models for the living; with their beautifully clad bodies, gentle faces, and elegant gestures, they were inspirational figures for beholders to look up to both literally and figuratively.

> "Cathedral sculptures brought biblical stories to life in powerful new ways"

It must be noted that these programmes, commissioned by clerical men, presupposed a Christian audience who would be moved by the stories. The European towns that were large enough to have cathedrals typically included Jewish communities and, in southern Europe, Muslims as well. Their impressions of the sculptural programmes would have been very different from those of Christians; such viewers would certainly have seen this abundance of figural imagery as evidence of idolatry, just as the Protestant Reformers in the 16th century would do. But that's a whole other story.

How did sculpture evolve throughout the Gothic era?

It's impossible to talk about 'evolution', both because 'Gothic' is such an artificial term and because of the way sculptural arts were practised in this period. In Italy, toward the end of the period, we learn some artists' names, but for the big cathedral projects of the later 12th and 13th centuries, we know nothing about these sculptors. We have no names, no dates and very little information about the composition of the workshops. It leaves a lot of room for art historical guesswork!

We do know that there were many workers busy at any given site – one or more designers who composed the image programmes in conversation with the clerical patrons, various specialised carvers, folks responsible for smaller-scale, decorative components, the technical wizards who set all the pieces in place, the painters and, of course, the labourers. These folks were all working for wages, and when the funds dried up they'd move to other places.

As art historians, we don't find a line of progression but rather a network of connections and adaptations across time and place. We find very different formats for organising sculpture programmes in Germany, England, Spain and Italy, as well as differences in figural style nuances, clothing fashions, and local stone with different textural qualities, all of which changed as younger sculptors attempted to emulate or outdo earlier models. However, the close attachment of sculpture and architecture, the focus on Christian themes and iconography, and the abiding interest in human beings remained consistent.

ELOQUENT BODIES: MOVEMENT, EXPRESSION, AND THE HUMAN FIGURE IN GOTHIC SCULPTURE
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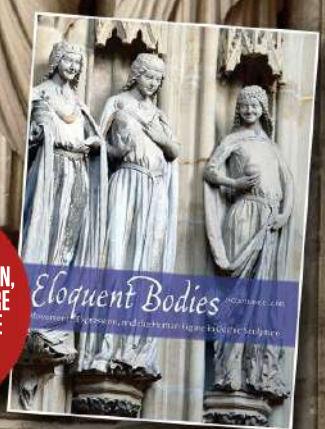


ABOVE Jamb statues on the south transept porch of Chartres Cathedral

GOTHIC ARCHITECTURE

From soaring cathedrals to monumental palaces, here are some of Gothic architecture's greatest achievements

1 BRUSSELS TOWN HALL
BRUSSELS, BELGIUM

The Town Hall of Brussels dominates the central square of the city. With a tower 96m tall and topped with a statue of the archangel Michael, the Town Hall was once one of the tallest buildings in Europe.

Construction on the Town Hall began in 1402 using the local Brabantine Gothic style. At the time Brussels was home to the Duke of Brabant and the wealth flowing from this association allowed for the construction of this grand building. Expansion was also funded by the inclusion of the city's trade guilds into the governance of the city.

The facade contains hundreds of tabernacles that once housed statues of both saints and secular local rulers – this building was a statement of municipal power set in stone. Due to damage from wars and numerous fires most statues have been removed, but they can still be found inside the Town Hall. The 19th century restorations give some idea of the magnificence of the building when it was first constructed.

Guided tours every Wednesday and Sunday
Tickets: €7

Gargoyles and grotesques leer down at visitors to Brussels Town Hall

The grand facade and tower of Brussels Town Hall is one of the finest examples of Brabantine Gothic architecture

2 THE DOGE'S PALACE
VENICE, ITALY

The facade of the Doge's Palace shows Gothic architecture influenced by both Byzantine and Arabic design

The Doge of Venice was one of the most powerful people in Europe – once elected by the elite of the city the Doge ruled the Republic of Venice for life. It was only fitting therefore that he should live in one of the grandest palaces in Europe. The Doge's Palace was started in 1341 and appears to float above St Mark's Square on a double layer of thin pillars of marble. The vast bulk of the palace above is traced with pink and white stone. This unique building shows a fusion of European Gothic, Byzantine, and Islamic influences.

If you visit the Palace you may enter through the Porta della Carta. Thought to be one of the pinnacles of Venetian Gothic, the sculptures that decorate the entrance show the symbolic relationship between the Doge and Venice's patron saints. The interior of the Palace is also sumptuously decorated with masterpieces created by the greatest artists of their day.

Open daily from 10:00 to 18:00
Tickets: €25 (includes entrance to other Venetian museums)

The stained glass of Sainte-Chapelle creates a glittering spectacle that changes throughout the day

3 SAINTE-CHAPELLE
PARIS, FRANCE

From the outside it is possible to entirely overlook the relatively modest chapel of Sainte-Chapelle. But once you step inside you will find yourself immersed in one of the wonders of Gothic design. Sainte-Chapelle is an example of the Rayonnant style of building that prioritised harmony and light inside a space, and its radiant stained glass fills the interior of the building with light.

Construction of what was once the royal chapel of a palace in Paris began in 1238. Sainte-Chapelle was built for King Louis IX, who was known for his piety, and after his death he was canonised as St Louis. One of his most spectacular acts of Christian devotion was buying a relic that supposedly contained the Crown of Thorns worn by Jesus at the crucifixion for a staggering 100,000 Livres. This and other religious relics were housed inside Sainte-Chapelle.

Today visitors can still marvel at the stained glass windows of the chapel. Each of the 15 windows stands 15 metres tall, and together they produce a flood of blue and red light that fills the sacred space. The windows retell the whole story of the *Bible*, from Genesis to the Resurrection, in pictorial form. Sainte-Chapelle is an elegant riposte to the notion that medieval world was a gloomy and grim place.

Open daily from 9:00 to 19:00
Tickets: €10

4 THE PRIMATIAL CATHEDRAL OF SAINT MARY OF TOLEDO
TOLEDO, SPAIN

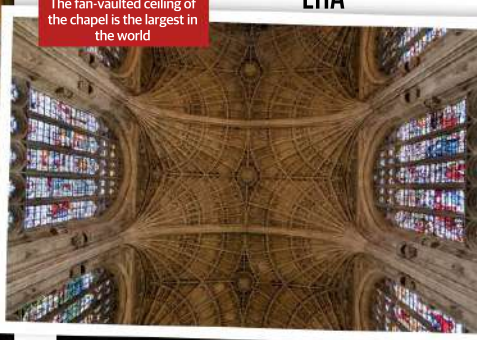
The recapture of Toledo from Muslim forces in 1085 was one of the key moments in the Christian Reconquista of Spain. On taking the city King Alfonso VI declared that the rights of the city's Muslim citizens would be respected. Almost immediately, though, Toledo's main mosque was torn down and the present cathedral was built on the site.

Toledo's cathedral is considered to be one of the great masterpieces of 13th century High Gothic style. While there are undoubtedly French influences in the design of the cathedral there are also aspects of Mudejar artistry – Mudejar art incorporated the geometric style of Islamic art into traditional European crafts.

The retable behind the main altar was one of the last great achievements of Gothic style in Spain

Once visitors enter the cathedral, whether through the Portal of Forgiveness or the Portal of Hell, they will find richly ornamented chapels and vaulted ceilings. Altars and paintings show the heights that Gothic-influenced art reached in the Late Medieval period. Those in search of Renaissance paintings will find works by Titian, El Greco and Caravaggio.

Open Monday to Friday: 10:00 to 18:30; Sunday: 14:30 to 18:30. Tickets: €10



The fan-vaulted ceiling of the chapel is the largest in the world

5 KING'S COLLEGE CHAPEL
CAMBRIDGE, UNITED KINGDOM

The chapel of King's College in Cambridge is one of the finest examples of the Perpendicular Gothic style that developed in Late Medieval England. The first stone of the chapel was laid in 1446 by King Henry VI and the construction of the building continued sporadically until 1515. However the original design, with its strong vertical and horizontal lines, was only altered in one key point.

When visitors step inside the chapel their eyes are immediately drawn upwards to the ceiling, which is a complex web of fan vaulting that soars 24 metres. Originally this ceiling was to feature a simpler geometric design, but it now stands as the largest fan-vaulted ceiling in the world.

Once a visitor lowers their eyes they will see the vast stained glass windows that dominate the walls of the chapel. These windows were completed between 1515 and 1531 and show the transition from Gothic to Renaissance art in England. The windows feature biblical stories but draw on contemporary artistic styles. Some suggest that the face of King Solomon found in the windows bears a striking resemblance to King Henry VIII.

Those who get up close to the walls and windows of the chapel may notice that students have left their mark. Graffiti carved into the walls can be found that dates from soon after the building's construction, through to the English Civil War and up to World War II.

Open most days from 10:30 to 15:00, but check online for College closures
Tickets: £10

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REIGN of TERROR

Uncover how France's revolution turned into anarchy and bloodshed

Written by Callum McKelvie

The evening sun hangs high over the courtyard of the Palais de Justice as the little cart makes its way through the vast crowds. Its passengers, three dirty and haggard men, look bleakly towards the ground, ignoring the heckling of the onlookers. One is badly beaten, his skin a pale colour and a bandage wrapped around his head. The dirty, tattered cloth is the only thing holding his jaw together. Across the square, the silhouette of the guillotine stands tall against the sky. Suddenly a woman pushes her way through the crowd, reaching the cart. "Monster spewed from Hell!" she cries. "The thought of your punishment intoxicates me with joy." It is 28 July 1794 in Paris and Maximilien Robespierre is about to be executed. But just what is it that caused France to react so violently? Who was Robespierre, the man who now faced death at the hands of madame guillotine? From 5 September 1793 to 28 July 1794, France found itself in the grip of the 'Terror' - a brutal period of state-sanctioned violence, which divides historians to this day. Historian Ian Davidson says, "it came without any defined aims or policy and was carried out without any detectable rules," whereas others believe it was an honest attempt to save the revolution.

The French Revolution had begun in 1789 and by 1792 the monarchy had been abolished and the Republic declared. However, by the beginning of 1793 the revolutionary government ruled over a country in turmoil. In March, the relatively conservative and highly religious department of the Vendée, in the lower western region, began to revolt against the conscription acts introduced in February. Soon discontent spread and other areas such as Lyon and Normandy similarly became openly dissatisfied. By May, rebel factions had taken key towns in the Vendée. At the same time, the French Revolutionary Army had just lost the major Battle of Neerwinden, against the superior Austrian forces. With dangers mounting both inside and out, the French Revolutionary Government took brutal steps to cement its authority. "Once Louis XVI was executed in January 1793 ▶

EXPERT BIO

© Charlotte Allen

PROFESSOR PETER MCPHEE

Former Provost of the University of Melbourne, Professor Peter McPhee has written widely on the subject of the French Revolution. His books include: *A Social History of France: 1780-1880* and *Robespierre: A Revolutionary Life.*

© Getty Images

LEFT Nanine Vaillain's painting of Liberty

Illustration by Kevin McGuken

the new Republic was soon at war with the whole of Europe, and anti-revolutionary anger in some regions erupted into a particularly bloody civil war," explains Professor Peter McPhee, author of numerous books on the French Revolution. "By mid-1793 the nation was in danger of falling apart. In response to the crisis, the elected parliament (the National Convention) vested draconian powers in a war-time executive government to take emergency measures to mobilise national resources to win the war and crush the counter-revolution. The Convention did not proclaim the rule of 'terror' but on 10 October 1793 issued a Declaration of Revolutionary Government whereby the government would be 'revolutionary until the peace'."

The architects of the Terror were (somewhat ironically) the Committee for Public Safety, a group that had originated following the overthrow of Louis XVI on 10 August 1792 and the proclamation of the French Republic on 22 September. By this point in the Revolution, the dominating force in the Convention were the Jacobins. This group believed in extreme egalitarianism and were the most influential political club. "The new regime had to devise a new executive form to replace the monarchy," explains McPhee. "The critical military and political situation was felt to require an emergency executive. In April 1793 the National Convention created a 12-man Committee of Public Safety with a mission to take the emergency measures necessary to save the Revolution. Members of the Committee could order arrests, but not executions, which were a matter for revolutionary tribunals. There were no formal cabinet roles, although individual members concentrated on particular functions, such as Carnot on military strategy and Lindet on army supplies. Its key figure, Robespierre, had no formal role but made the major speeches in the National Convention, to which the Committee reported monthly."

RIGHT Marie Antoinette before the revolutionary tribunal on 1 October 1793. She would become one of the most high-profile victims of the Terror

RIGHT-INSET Maximilien Robespierre, one of the key figures of the Terror

FAR-RIGHT The Girondins are taken to the gallows in 1793 following their fall from power and subsequent trial

Robespierre would become the most prominent member of the Committee of Public Safety and the name most commonly associated with the Reign of Terror. But who was this young man who many deemed responsible for pushing the Revolution to its darkest extreme yet? "Maximilien Robespierre (1758–94) was a small-town lawyer from north-eastern France," says McPhee. "Like so many of his peers he saw in the political upheaval of 1788-89 the opportunity to rectify the glaring injustices of absolutism and aristocratic privilege. He became one of the most prominent Jacobins along with Danton and Desmoulins. Only in July 1793, at the time of the Revolution's greatest crisis, did he enter government as an elected member of the Committee of Public Safety, and was widely seen as its key spokesman.

"The Committee was prepared to use violence against citizens in a desperate attempt to bring stability"

FRENCH REVOLUTION TIMELINE

From the Bastille to Napoleon, the story of the most turbulent period in France's history

July 1789

An angry mob attacks the Bastille prison, a symbol of the monarchy's dictatorial power. The seven prisoners are freed and the governor killed, his head carried on a spike. Discontent against the monarchy spreads, the Revolution is in full swing.

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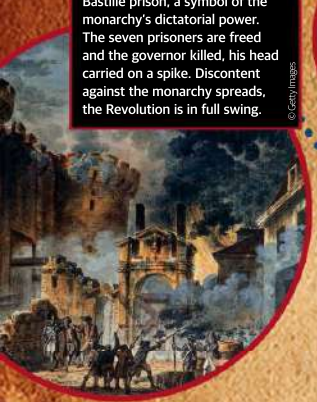

August 1789

Declaration of the Rights of Man and the Citizen is adopted, outlining the basic principles that inspired the Revolution.

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June 1791

Louis XVI and family attempt to flee France, however they are captured at Varennes and imprisoned. He is executed in 1793.

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April 1792

The French Revolutionary Wars begin after France declares war on Austria, leading to two decades of bloody conflict.

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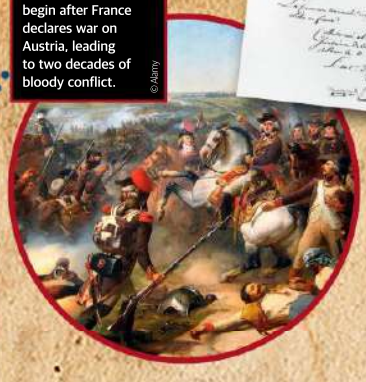

September 1792

The National Convention is established, making France a republic and abolishing the monarchy.

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RIGHT General Custine, Guillotined for 'treasenous' losses in Germany

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He suffered increasingly lengthy periods of nervous collapse correlating with moments of political crisis, yet he was tragically unable to step away from the crushing burdens of leadership."

With a mission to save the Revolution, on 5 September 1793 the Committee for Public Safety declared France: "Revolutionary until peace." This broad statement in short meant that a state of emergency was in force and that the Committee was prepared to use violence against its own citizens in a desperate attempt to bring stability to France. The Terror began in practice on 29 September, with the implementation of the Law of Suspects. This law identified 'enemies' of the Revolution and allowed for the creation of revolutionary tribunals, through which they would be tried and executed. In order to impose these new draconian

March 1793

The first of the Vendée rebellions begins, plunging Revolutionary France into civil war when it is already fighting against foreign powers.

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July 1793

Prominent Republican Jean-Paul Marat is murdered in his bath by 25-year-old Charlotte Corday. This event is instrumental in the reprisals against the Girondists.

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September 1793

The Reign of Terror begins and a wave of executions sees thousands go to the guillotine in an attempt to stabilise Revolutionary France.

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July 1794

Maximilien Robespierre (along with his followers) is sent to the guillotine, ending the Terror

© Getty Images

November 1799

Napoleon Bonaparte seizes control in a coup d'état, which overthrows the French directory and is often seen as the end of the Revolution.

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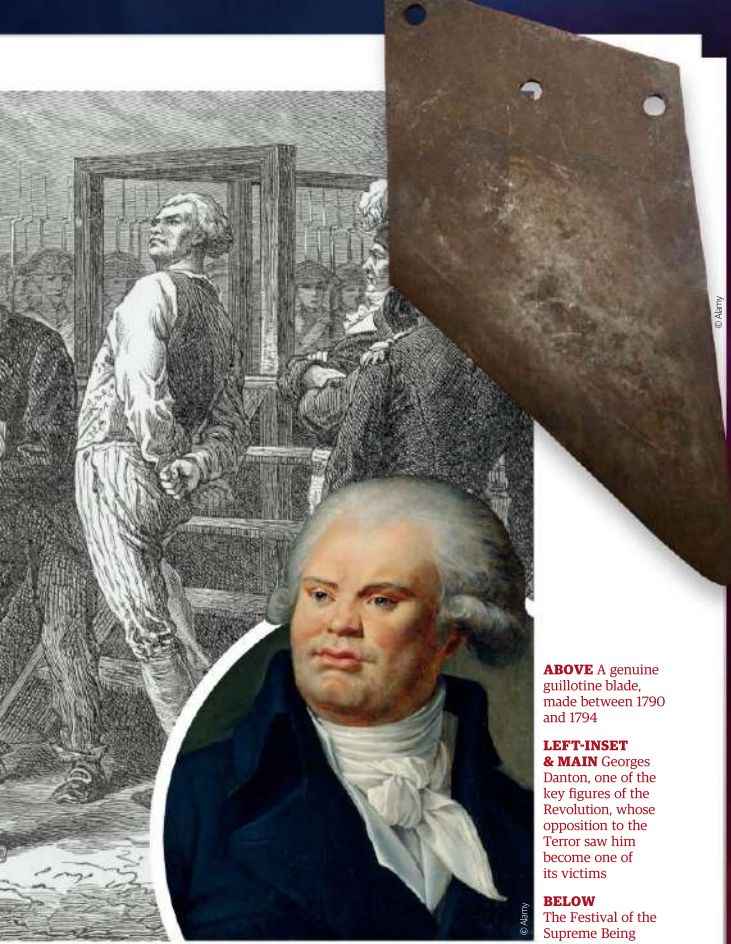
measures, the Committee for Public Safety mobilised the Armée Révolutionnaire, whose aim was supposedly to commandeer food supplies. However, in practice it was used for another, more sinister purpose as it became the brute weapon of the Committee and its paramilitary arm. The new law gave some 20,000 local police committees (named Comités de surveillance) the power to arrest anyone deemed to be an enemy of the Revolution and of liberty. How many were arrested during this time remains unknown. As Davidson describes in his book, *The French Revolution*: "The Law of Suspects was loosely drawn and no one knows exactly how many people were arrested during the period of the terror. It was certainly tens of thousands and may well have been hundreds of thousands." Possible figures suggested range from 300,000 to 500,000. The Law of Suspects also called for the arrest of any one who, "by their writings have shown themselves partisans of tyranny", therefore preventing any further criticism of the regime.

One of the factors that had led to the creation of the Terror and would soon be the focus of one of its bloodiest events was the overthrow of a political group known as the Girondins. This group had shown some leniency towards the monarchy and as a result had come into direct conflict with the radical Jacobins. Their reluctance to adopt emergency measures in the name of the Revolution, to satisfy the demands of Parisian workers and the fact that some had opposed the execution of the king, led to their downfall in June of 1793. Following the execution of Marie Antoinette on 16 October, 21 of the most prominent Girondins were brought to trial and executed. A number of others were tracked down and either committed suicide or were similarly sentenced. One of the most high-profile victims of the Terror, who faced the guillotine at the same time as the Girondins, was Louis Philippe II, Duke of Orléans, who had actively supported the Revolution and voted for the death of his cousin, Louis XVI. Following the desertion of his son to the enemy, he was tried for the same charges as the Girondins and sentenced to death. As he met the executioner on the scaffold he stated dryly: "Really, this seems a bit of a joke."

Yet, although most histories focus on these aspects, the Terror was not purely characterised by violence. There were other methods through which the Committee sought to save the Revolution. The Law of the Maximum, introduced in September 1793, had been demanded by the lower classes for some time and put strict restrictions on the prices that goods could be sold for. On 4 September 1794, slavery was abolished in the French colonies. However, one of the key factors of the Reign of Terror, was the dechristianisation of France. The Catholic Church had always sat at odds with the Revolution; with its power to tax the public and extreme wealth it was seen as an artefact of the Ancien Régime. In October 1793 public worship was forbidden and slowly over the following months any signs relating to Christianity were removed. Items such as bells were melted down to be used in the war effort, while any valuables were seized in the name of the Revolution. Finally, on 23 November all churches were closed and some were converted into stables. Any street that bore the name of a saint was renamed, often with a Republican theme. A new calendar was even created, purged of any religious holidays and establishing a ten day week - eradicating Sunday as a day of rest. The following year Robespierre introduced the Cult of the Supreme Being, designed to be a new state religion. On 8 June 1794 the Festival of the Supreme Being was held, for which the artist Jacques-Louis David constructed a huge mountain out of timber and plaster. Robespierre and the other members of the convention ascended to the top of the structure, where he delivered a speech, proclaiming his new religion. Following Robespierre's death the cult faded into obscurity.

"How many were arrested during this time remains unknown, with figures ranging from 300,000 to 500,000"

LEFT An illustration of a typical group of Revolutionaries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ABOVE A genuine guillotine blade, made between 1790 and 1794

LEFT-INSET & MAIN Georges Danton, one of the key figures of the Revolution, whose opposition to the Terror saw him become one of its victims

BELOW The Festival of the Supreme Being

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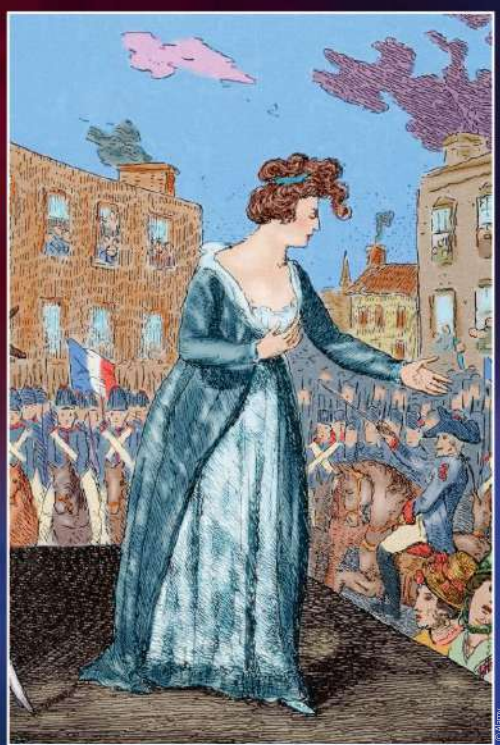
DEATH OF A QUEEN

Arguably the Terror's most famous victim, Marie Antoinette was executed on 16 October 1793, nine months after the death of her husband King Louis XVI

The daughter of Holy Roman Emperor Francis I and Maria Theresa of Austria, Marie Antoinette was born in 1755, marrying Louis-Augustus at the age of 15. Following the start of the Revolution in 1789, Marie became a hated symbol of the French royal family's detachment from the situation in France. For example,she purportedly uttered the phrase: "Let them eat cake" after being informed that her subjects had no bread. While the story has often been debated and evidence suggests that it was not true, the legend provides an example of the ordinary people's overwhelming discontent with the ruling monarchy.

Following the overthrow of the monarchy on 10 August 1792, Marie Antoinette spent the final year of her life in prison. Originally kept at the Temple, a luxurious prison-palace, she was soon transferred to the Conciergerie, a grim and depressing place, where she was kept mostly in solitary confinement. On 14 October, she was brought for trial. As an Austrian it was widely rumoured that she was in league with France's enemies, and she had often been unpopular with the people. Two days later she was condemned to death and executed by guillotine.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"There would be no interrogation or evidence against them and the only choices the tribunal had were acquittal or death"

If it was not already apparent that no one was safe from the bloody anarchy unleashed upon the streets of France, then the downfall of Georges Danton would demonstrate how far those in favour of the Terror were prepared to go. Danton had been a key figure in the overthrow of the monarchy and was initially an important member of the Committee of Public Safety. In fact, in the early months he was effectively the Committee's head but his failure to deal with foreign powers through negotiations meant he was quickly pushed to the margins. He had been instrumental in the creation of the revolutionary tribunal and had contributed to ending the power of the Girondins. However, Danton marked himself as a possible 'enemy of the Revolution' by challenging Robespierre, the Terror and the revolutionary government. He did this through increasing moderation, wishing to slow the Revolution and reinstate the Declaration of the Rights of Man and Citizen. His moderation made him the leader of Les Indulgents, a faction that openly opposed the Terror.

Before his arrest Danton met with Robespierre several times, but received only a stony silence. Despite Danton's pleas for clemency, using old friendships and loyalty as leverage, Robespierre was defiant. Danton's trial lasted four days, during which he was accused of involvement in a variety of different treasons including attempting to save the king, treacherous transactions with the Girondins and carrying on secret friendships with foreigners. To quote Davidson: "No one could have been in any doubt: this was to be another show trial." On 5 April 1794, as he was led to the guillotine, Danton reputedly turned to the executioner and said: "Show my head to the people, it is worth seeing."

Yet in many ways the worst was yet to come, and on 10 June 1794 the implementation of the conspicuously named Law 22 of Parisial Year II freed the Revolutionary Tribunals from control by the National Convention. Not only this, but it also limited the ability of a suspect to defend themselves, as well as broadening the number of criminal charges. The accused was allowed no lawyers, there would be no interrogation or evidence against them and the only choices the tribunal had were acquittal or death. The motivation behind this most brutal of laws was the attempted assassination of Jean-Marie Collot D'Herbois, a member of the Committee for Public Safety, and the arrest of a woman carrying a knife who was supposedly planning an attack on Robespierre himself. Perhaps the 33-year-old was feeling paranoid – his health was certainly in decline – but whatever the reasoning the result was 'The Great Terror'. In a mere six weeks some 1,376 people were executed, as Chief Prosecutor Antoine-Quentin Fouquier-Tinville stated: "Heads were falling like slates off the roof." The people became restless and discontent spread.

Yet there was hope on the horizon. On 26 June victory at the Battle of Fleurus ended foreign occupation of France, giving some hope that the Terror itself might soon end; after all, in 1793 the government had declared it would be, "revolutionary until peace." Hadn't that peace now been achieved? ▶

BELOW Charles-Louis Muller's Last Roll Call of the Victims of the Terror
© Getty Images

BELOW-INSET An example of a death sentence from the Revolutionary Tribunal, signed by Fouquier Tinville
© Alamy

EXÉCUTEUR DES JUGEMENS Criminels.

TRIBUNAL RÉVOLUTIONNAIRE.

L'EXÉCUTEUR des Jugemens Criminels ne fera faute de se rendre en Soin à Trois Heures de Prime.

à la maison de Justice de la Conciergerie, pour y mettre à exécution le Jugement qui condamne Martin ex-contrôleur des Equipages de Pantalon Carré

à la peine de mort. L'exécution aura lieu aujourd'hui à quatre Heures précises du Soir sur la place de la Révolution de cette ville.

L'ACCUSATEUR PUBLIC. A. Y. Fouquier

Fait au Tribunal, le trois Ventôse l'an second de la République Française.

MEETING MADAME GUILLOTINE

Striking fear into the hearts of France

If any single object has become associated with the Terror, if not with the Revolution as a whole, then it is that of the guillotine. In 1789, during a debate surrounding the Penal Code, Dr Joseph-Ignace Guillotin proposed that a more humane way of executing prisoners be found. He suggested that death, without torture, by decapitation would be an appropriate method. The proposal approved, Dr Antoine Louis set about designing a device that would sever the head clean and quickly, avoiding the botched executions often seen by sword or axe beheadings. In Guillotin's own words: "The mechanism falls like lightning; the head flies off; the blood spurts; the man no longer exists."

The prototype was tested on sheep and calves first, before human cadavers were used to provide a more accurate demonstration. On the 25 April 1792, the guillotine was used for the first time in an actual execution, that of Nicolas Jacques Pelletier, a highwayman sentenced to death for robbery and murder. Pelletier was forced to wait for the machine's completion before his execution was carried out. On the day of his death, the crowd were purportedly disappointed with this new, cleaner method of dispatch and some cried out for the return of the gallows. The final person executed in France by guillotine was the murderer Hamida Djandoubi, in 1977.

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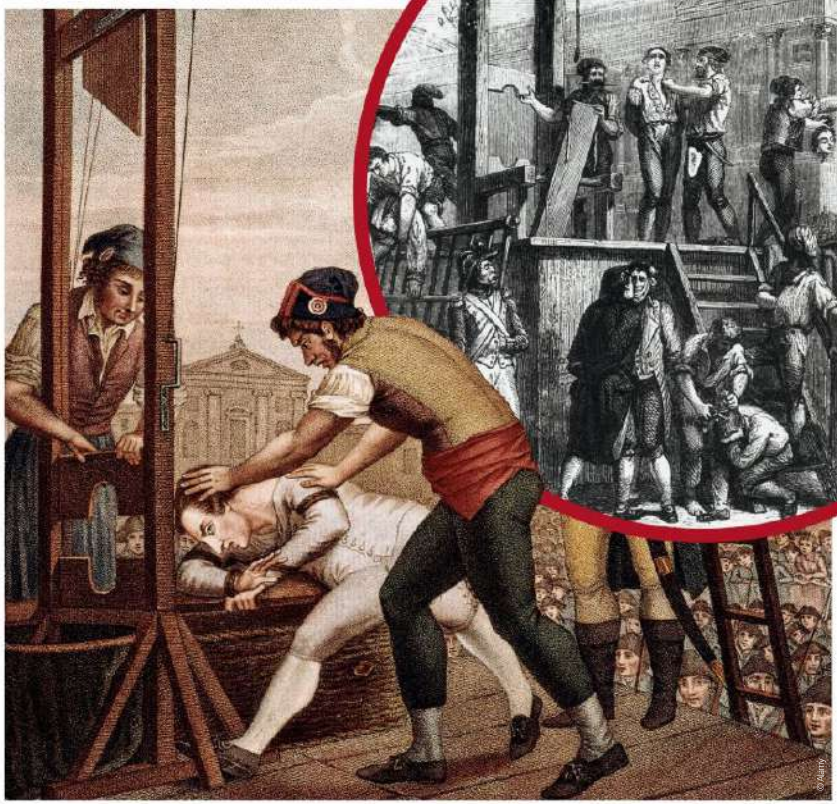
ABOVE
The arrest of Robespierre, showing him being shot as opposed to attempting suicide

Yet any indication that the progress of the terror would be halted never occurred. Instead Robespierre stepped back from public affairs and for the following three weeks was absent from the Convention and all other meetings. Quite why remains a mystery, though most likely it was due to ill health. Upon his return on 26 July Robespierre proceeded to denounce numerous members of the Convention and claimed there was a, "conspiracy against public liberty." He had made many enemies and perhaps feared for his own security, but in doing so attacked all the key government institutions. His refusal to name any of the members of the supposed conspiracy angered the Convention and the following day, when attempting to speak, his voice was drowned out by booing. The Convention voted for his arrest, yet the prisons refused to accept him due to the mayor being a loyal devotee of Robespierre. Instead he went to the Hotel De Ville with his followers, while the Convention planned its next move.

At around 2:30am, the Convention's forces entered the town hall. The troops found Robespierre in the middle of writing a desperate appeal to his own Section des Piques for help, but what happened next remains something of a mystery. Some historians believe that he may have attempted to commit suicide using a pistol, whereas others think that he was shot by a gendarmerie. Whatever the cause, the result was that a bullet was fired through his left cheek, smashing his teeth and jaw. As doctors inspected the horrific wound, one of the officers noted that, "the monster did not take his eyes off of us, but without uttering a word." While this description paints the image of silent evil, it was most likely because Robespierre was unable to speak due to the pain. At his trial he made repeated requests for pen and paper but was consistently ignored. At 7pm on 28 July the



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"Robespierre's life is also the tragic, human story of a vulnerable but determined young man"

executions of Robespierre and his followers commenced. A final humiliation occurred as the executioner ripped the bandage off, causing Robespierre's jaw to fall away as he screamed in pain. The first deputy was then pushed to his knees to become another victim of Madame Guillotine. The Terror was over.

Or was it? Unlike much of the Revolution, with each period feeding directly into the next, the Terror is often viewed as a distinct moment all of its own. However, in many ways it is more beneficial to see the Terror as a part of the wider structure, in particular how it came to influence the period directly following Robespierre's execution. McPhee explains: "While most histories link the overthrow of Robespierre and his associates with the end of the Terror it is more accurate to see a continuing period of terror, this time directed at the Jacobins. This period, labelled the 'White Terror', lasted until the abolition of the Revolutionary Tribunal on 31 May 1795. It may have seen up to 6,000 extra-judicial revenge killings of revolutionary militants across the country. After the failure of the Parisian insurrection of May 1795, 36 insurgents (including six deputies) were sentenced to death, over 4,000 Jacobins and others were arrested, and 1,700 were stripped of all civil rights. Prison camps were established in Guiana, dubbed 'the dry guillotine' because of the harshness of its conditions."

ABOVE-INSET An illustration of the execution of Robespierre and his followers

ABOVE The death of Robespierre, the event that signalled the end of the Terror

If the Terror is remembered for anything, it is the state-sanctioned use of violence in the name of the Revolution. Yet as McPhee points out, the violence and brutality of the Terror didn't end and indeed can be claimed to inform the following five years of the Revolution. "The period known as the Directory (1795-99) before the coup d'État of Napoleon Bonaparte in November 1799 saw a return to constitutional government and the abolition of the revolutionary tribunals," McPhee explains. "State violence continued with a major political trial and execution of the [proto] communist 'Gracchus' Babeuf and his supporters in May 1797 and two major purges of political opponents within the national parliament (Council of Five Hundred): groups of royalists were expelled in September 1797 and republicans in May 1798."

And Robespierre? How should we remember the man who faced the guillotine on that fateful afternoon in July, the same instrument that had tasted the blood of thousands under the rule of the Committee of Public Safety that he served? Even now, over two centuries after his death, historians still debate the young lawyer turned politician's role and responsibility for the Terror and his place in history more generally. "For some historians and biographers, Robespierre was a great revolutionary martyr who succeeded in helping lead the French Republic to safety in the face of overwhelming military odds," McPhee explains. "For many others, he was the first modern dictator, an icy fanatic. His horrible death and posthumous vilification should not detract from his contribution to the Revolution's successes. His life is also the tragic, human story of a vulnerable but determined young man who put himself at the heart of one of the world's greatest upheavals."

10 Strangest Bible stories

From rivers of blood to Moses having horns, the Good Book has no shortage of strange stories

The *Bible* is the best-selling book of all time, according to the Guinness World Records, and it's packed full of tales, some rather fantastic and others actually quite historical. While it has been through many revisions and translations, there is much historically we can take from it. Some stories, such as hell being named after a rubbish pit, refer to important archaeological sites – in this case Gehenna, a location believed to be in Jerusalem. Others, such as that of a literal scapegoat, explain how phrases that are commonly used in modern times came into existence. Here are just a few of the more bizarre biblical stories you can find.

Main image: © Getty Images

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Human-God interbreeding

Did mysterious superhumans influence God's decision to send a flood?

THE BOOK OF GENESIS

The *Book of Genesis* says: "The sons of God saw that the daughters of humans were beautiful, and they married any of them they chose." Their children were god-human hybrids that the *Bible* refers to as the Nephilim. God is unhappy about this interbreeding and, "regretted that he had made human beings on the earth, and his heart was deeply troubled." So he sends a flood that wipes out many of the humans and Nephilim, but not before ordering Noah to build an ark that saved a select few. The biblical story suggests that the breeding between gods and humans was apparently a major factor in God's decision to send the flood.

"Breeding between gods and humans was a major factor in God's decision to send the flood"

The original *scapegoat*

Standing behind curtains could cause all sorts of trouble

THE BOOK OF LEVITICUS

In the *Book of Leviticus*, God is annoyed at Aaron, the brother of Moses, for frequently standing behind a set of curtains near the Ark of the Covenant. God regards the area behind the curtain as a private area that people should stay away from when possible. God is also frustrated with the Israeli people in general for their, "uncleanness and rebellion." As atonement, God orders Aaron to present offerings, including two goats; one to be sacrificed and the other, "shall be presented alive before the Lord to be used for making atonement by sending it into the wilderness as a scapegoat."

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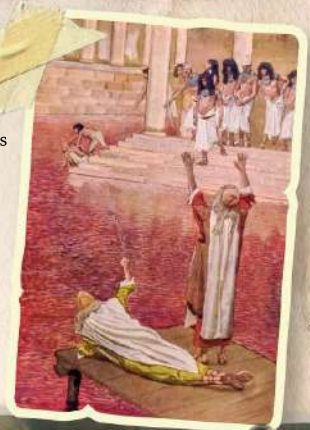
Nile turning to blood

A lesson for wronging God's chosen people

THE BOOK OF EXODUS

After Egypt's pharaoh refuses to grant the Israelites freedom, God tells Moses and Aaron to use their staffs to turn the River Nile to blood: "And the fish in the Nile died, and the Nile stank, so that the Egyptians could not drink water from the Nile. There was blood throughout all the land of Egypt."

There is one Egyptian record that refers to a historical event that sounds a bit like this. The *Ipuwer Papyrus*, written in the name of a man named Ipuwer, discusses Egypt suffering from chaos and warfare and says that, "the river is blood." The text dates back more than 3,000 years, although its precise date is a matter of debate among scholars. Another, more mundane, explanation for what happened to the Nile is that red algae bloom can cause the water to appear red.



Exceedingly long life spans

Retirement plans were expensive in the early days

THE BOOK OF GENESIS

The *Book of Genesis* is chock-full of centenarians. Adam was 130 years old when he had a son named he Seth. Adam lived a total of 930 years before he died, while his son Seth was 105 years old when he fathered Enosh, ultimately living to the age of 912. Enosh then lived for 905 years. Scholars have long debated why the *Book of Genesis* tells of people having super-long lifespans. One possibility is that the writers of Genesis measured the length of a year differently, while another possible explanation is that the shortening lifespans as the *Bible* goes on is a punishment for humanity's sins.

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Moses has horns?

A matter of translation and near-east tradition

THE BOOK OF EXODUS

Moses, on behalf of the Israelites, makes a covenant with God on Mount Sinai. In the covenant, God promises that the Israelites will take control of a vast amount of land in the Levant but, in return, must worship God and follow his rules – the Ten Commandments in particular. Moses chisels the covenant onto two stone tablets. After he returns from Mount Sinai, his face is transformed, and he is wearing a veil.

The word actually used to describe Moses' appearance was 'qaran', which was translated as meaning he 'shone' or that his skin 'was glorified'. However, the root word may have actually been 'qeren', which means 'horn'. So did Moses return from the mountain with horns?

Certainly a lot of people believed that Moses had grown horns and there are plenty of examples of this in artwork depicting this moment in the *Bible*. Another translation, however, could be that he had boils. Either way, it was an odd transformation.

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Hell is a rubbish pit

You thought the damned had it bad enough already

GOSPEL OF MATTHEW

In the *Gospel of Matthew*, Jesus warns people of the dangers of going to hell if they sin. For example, he says: "If your right eye causes you to stumble, gouge it out and throw it away. It is better for you to lose one part of your body than for your whole body to be thrown into hell."

The word 'hell' is a translation of the Greek word 'gehenna', which was an actual place in ancient Jerusalem that was used to burn refuse. With so much rubbish being produced by the local community, Gehenna was always burning. As such it was probably being used as an illustrative example of what damnation would feel like.

> "If your right eye causes you to stumble, gouge it out and throw it away"

Seven demons

The exorcism of Mary Magdalene

THE BOOK OF EXODUS

Jesus drove seven demons out of Mary Magdalene, according to the books of Mark and Luke. The exact nature of these demons is not explained, although there being seven of them hints towards the seven deadly sins. Nor does the story explain what effect these demons had on her, although it could be suggesting she suffered from an illness of some kind.

It's not known whether Mary Magdalene suffered from any maladies, nor what they may have been. The *Bible* provides us with few clues as to her health, and there are no historical records revealing that information, so this is one story that remains a mystery.

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Gnarly vision

He gets knocked down, but He gets up again

THE BOOK OF EZEKIAL

In one bizarre vision of the Almighty, the prophet Ezekiel says God appears to him on, "a throne of lapis lazuli," as, "a figure like that of a man. I saw that from what appeared to be his waist up he looked like glowing metal, as if full of fire, and that from there down he looked like fire; and brilliant light surrounded him." In the vision, Ezekiel also mentions seeing four, "living creatures," near God, adding: "In appearance their form was human, but each of them had four faces and four wings." He also describes a wheel on the ground beside each of the creatures.

This story is set after the destruction of the First Temple by the Babylonians in 586 BCE, so it may have been a way of saying that God is alive despite the destruction of the temple.

"God appears to Ezekiel 'on a throne of lapis lazuli'"

God tries to kill Moses

Sometimes He was a capricious sort

THE BOOK OF EXODUS

The *Book of Exodus* also contains a baffling turn of events. At one point, God gives Moses instructions on what he must do to help free the Israelites from Egypt's pharaoh. God gives Moses special capabilities, such as the ability to turn his staff into a snake. However, as Moses heads toward Egypt, God gets another idea: "At a lodging place on the way, the Lord met Moses and was about to kill him. But Zipporah [the wife of Moses] took a flint knife, cut off her son's foreskin and touched Moses' feet with it. 'Surely you are a bridegroom of blood to me,' she said. So the Lord let him alone."

Scholars differ in their explanations as to why God initially planned to kill Moses. One possibility is that some passages from this biblical story that may have answered that question were lost.

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Demoting the gods

Heaven ain't big enough for all of them

THE BOOK OF PSALMS

Although Judaism and Christianity are both monotheistic religions, the *Bible* sometimes implies that other gods exist. One example, coming from the *Old Testament*, is *Psalm 82*: "God presides in the great assembly; He renders judgement among the gods... The gods know nothing; they understand nothing. They walk about in darkness; all the foundations of the earth are shaken."

The passage suggests that God has power over other godly figures and can demote them. In the following passage, God then announces that he has decided to demote the other gods, turning them into mere mortals: "I said, 'You are 'gods'; you are all sons of the Most High.' But you will die like mere mortals; you will fall like every other ruler."

Stories like this may provide clues as to how religion evolved in Israel. One theory among scholars is that multiple gods may have been worshipped early in Israel's history and that over time the Israelis adopted a single god.

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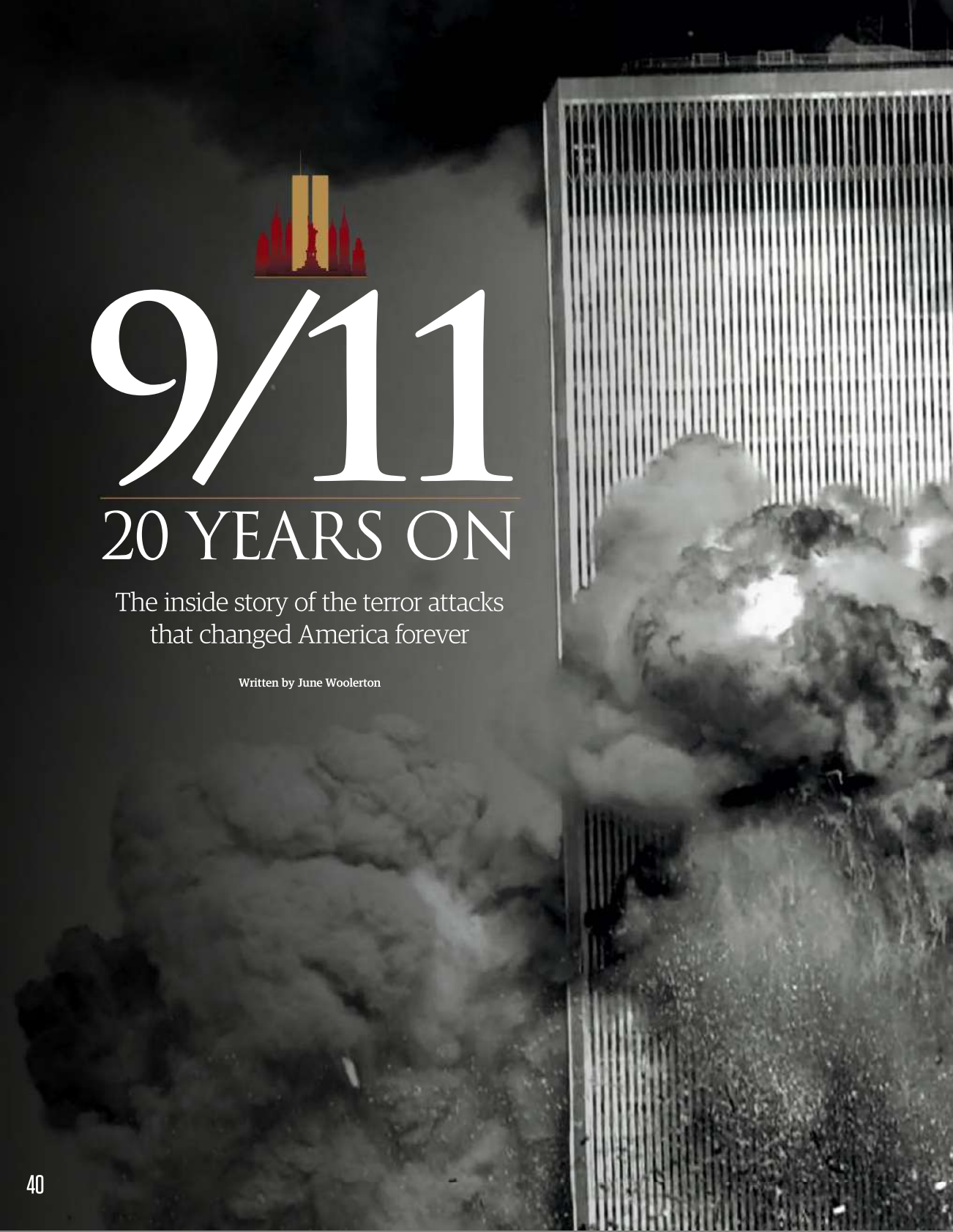

9/11

20 YEARS ON

The inside story of the terror attacks that changed America forever

Written by June Woolerton

The second hijacked plane is flown into the South Tower of the World Trade Center

All images © Getty Images

The morning of 11 September 2001 was bright and calm across much of the East Coast of the United States of America. In New York, many city workers began their days as usual with a jog, running beneath a late summer's blue sky. In Florida, Commander in Chief President George W Bush did exactly the same, enjoying an early morning run ahead of a routine visit to a school. Twelve hours later, many of those same workers would sit in front of their televisions watching him promise to protect their nation following the deadliest terrorist attacks the Western world had ever seen.

As the joggers got ready for work, two men spoke to each other by phone from two different departure lounges at Logan International Airport in Boston. Mohamed Atta and Marwan al Shehhi chatted for around three minutes. It would be their last conversation. For several years, they had been part of a terrorist cell preparing for a string of attacks on targets across the US. They planned to hijack planes laden with fuel and fly them into high-profile targets. Atta, along with three other hijackers, boarded American Airlines Flight 11 while al Shehhi and another four conspirators headed for AA Flight 175. The planes took off within 15 minutes of each other, both bound for Los Angeles. They would never arrive. Within an hour, both had been taken over by the terrorists and crashed deliberately into the Twin Towers of the World Trade Center in New York as the world watched.

Garrett M Graff is a leading historian of the attacks that soon became known as 9/11. He has spent years listening to the testimonies of those who experienced the attacks first-hand, their tales brought together afresh in his new book *The Only Plane in the Sky: An Oral History of 9/11*. For him, much of what we know of the day has been established with hindsight.

"The story that we teach of 9/11, the history that we tell, is a much neater and simpler and knowledgeable history of that day than the experience of anyone who was there," he says. "We say there were four planes, the whole thing began at 8.46am with the first crash into the North Tower, the whole thing ended 102 minutes later at 10.28am with the collapse of the second tower, there were four strikes, two at the Twin Towers, one at the Pentagon, one at Shanksville, and slightly under 3,000 people died. Well, that's not the day that anyone who lived 9/11 remembers. We didn't know when the attacks began, we didn't know when they were over, we had no idea of the scale of the tragedy and we had no idea of what came next."

When Flight 11 flew into the North Tower, many people on the ground presumed it was an accident. But authorities already knew they were dealing with a terrorist incident. A quarter of an hour into its flight, the cockpit team had stopped acknowledging air control's messages. A flight attendant, Betty Ong, had made contact with American Airlines Reservation Center in North Carolina, telling them: "I think we're getting hijacked." She reported that two flight attendants and a passenger in business class had been stabbed, and said she thought mace had been used and that people were struggling to breathe. Another attendant, Amy Sweeney, got through to the American Flight Services Office in Boston and told them she couldn't contact the cockpit but there was a bomb in there. Her last words to them were: "We are way too low." Within seconds, the plane had hit the North Tower between the 93rd and 99th floors. Everyone on the plane was killed instantly. So, too, were the people working on those floors. The jet fuel created a massive fireball on impact that burned through one bank of elevators.

For those in other parts of the North Tower, the noise and movement of the building was unusual but didn't immediately signal an emergency. Bruno Dellinger was on the 47th floor. He later told the 9/11 Memorial and Museum that, "the building swung for maybe two or three minutes, we were used to the building swaying, of course, because of when it was a stormy day".

BELOW A lone firefighter stops amid the debris following the collapse of the second tower at the World Trade Center

A Timeline of the Day

Events as they happened on 11 September 2001

7.59AM Flight 11 departs Logan International Airport with 11 crew and 81 passengers on board, bound for Los Angeles. Among the passengers are four hijackers

8.14AM Flight 11 is hijacked over Massachusetts

8.42AM Flight 93 takes off from Newark International Airport carrying seven crew and 37 passengers, among them four hijackers

8.46AM Flight 11 is crashed into the North Tower of the World Trade Center

9.03AM Flight 175 is crashed into the South Tower of the World Trade Center

9.28AM Flight 93 is hijacked above northern Ohio

9.42AM The Federal Aviation Authority grounds all civilian planes in US airspace and orders all airborne aircraft to land immediately

9.57AM Passengers on board Flight 93 begin to tackle the hijackers

10.03AM Flight 93 crashes into a field at Shanksville, Pennsylvania

10.50AM Five stories of the Pentagon collapse as fire continues to engulf part of the building

8.30PM President George W Bush addresses the United States from the Oval Office

8.14AM Flight 175 leaves Logan International bound for Los Angeles. Five hijackers, another 51 passengers and nine crew are on board

8.20AM Flight 77 departs Washington Dulles Airport, en route to Los Angeles, carrying six crew and 58 passengers, including five hijackers

8.42AM Flight 175 is hijacked above New Jersey

8.50AM Flight 77 is hijacked above southern Ohio

9.05AM US President George W Bush is informed that America is under attack

9.37AM Flight 77 is crashed into the west side of the Pentagon

9.45AM US airspace is shut down completely

9.55AM US President George W Bush is flown to an undisclosed destination on Air Force One

9.59AM The South Tower of the World Trade Center collapses

10.28AM The North Tower of the World Trade Center collapses

5.20PM 7 World Trade Center collapses after sustaining heavy damage from the collapse of the Twin Towers

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FAR-LEFT Panicked onlookers run for their lives as the burning World Trade Center collapses

LEFT An injured firefighter is lifted from the rubble by his colleagues

Emails and phone calls from people inside the building show them asking relatives to put on the TV to find out what had happened. Within minutes, media outlets across the US and then the world began to run images of the Twin Towers, smoke billowing from the North Tower.

Graff says that although there was concern, New York carried on pretty much as usual: "Peter Johanssen, who is New York commuter ferry captain that morning... talks about how he watched the first crash from New York harbour, comes in, docks at the Wall Street terminal in the shadow of the World Trade Center and every single passenger on his ferry gets off and walks into Lower Manhattan even as there is paper and debris raining down on them from the World Trade Center. Everyone is like, 'Oh, this is a weird thing that happens in New York City' and just goes about their day."

Those workers would have heard sirens wailing as the emergency services mobilised. The New York Fire Department responded within seconds of the crash and its first contingent arrived six minutes after impact. As one ladder company climbed into the Tower to assess the situation, chiefs raced to work out their best plan of action, but they already knew the scale of the blaze meant their focus was rescue rather than firefighting. An emergency command post was set up in the lobby as authorities including the New York Police Department and the Port Authority came together to tackle the unfolding crisis.

However, as they discussed evacuating the South Tower over concerns about the flames caused by the crash of Flight 11, their contact centres had no new information about the emergency. They were deluged with calls, including many from inside the North Tower, and began by following protocols and telling people to stay where they were. However, as the increasing urgency of the situation became clear, some began to tell people to leave. Meanwhile, NYPD helicopters began reconnaissance flights to work out plans for possible rooftop rescues.

Inside, some still watched TV. They, like millions around the world, would see Flight 175 flown into the South Tower of the World Trade Center just 17 minutes after the North Tower was hit. One passenger on that second flight, Peter Hanson, had called his father just beforehand to tell him: "It's getting bad, Dad, a stewardess was stabbed, they seem to have knives and mace, they say they have a bomb." His last words were: "It if happens, it'll be very fast, my God, my God." The plane hit the Tower between the 77th and 85th floors, killing everyone on board instantly and hundreds more within the building.

> "The story that we teach of 9/11 is a much neater and simpler history than the experience of anyone who was there"

In Sarasota, Florida, President Bush was just about to start reading to pupils when his Chief of Staff, Andrew Card, moved in to whisper to him: "A second plane hit the second tower, America is under attack." The President moved to another classroom to take phone

RIGHT Shocked and exhausted rescue workers take a brief rest as they search for survivors

calls as officials made plans to rush him to safety.

An evacuation of both towers was now underway as fires continued to spread. The thick smoke had forced many to keep moving upwards, and some on the highest floors had fallen or jumped as the heat and smoke overwhelmed them. Just 56 minutes after the second hijacked plane had crashed into it, the South Tower collapsed in on itself in just ten seconds. Everyone inside was killed, as were people in the immediate vicinity of the building. A huge cloud of debris spread through the neighbouring streets as onlookers ran for their lives. Hundreds more died when the North Tower collapsed just over half an hour later.

Mychal Judge, the Chaplain to the New York Fire Department, had rushed to the North Tower when he heard of the crash to offer his help. After the South Tower was struck, he was hit by debris and his body was found just a few minutes later. He became the first identified victim of the attacks in New York that would claim, in total, 2,753 lives.

Among the dead were 343 firefighters, 23 police officers and 37 Port Authority officers. "Part of what is important to understand about the men and women who responded that day from the Fire Department of New York, the NYPD, the Port Authority Police, the other agencies involved, is that these are very small families and fraternities. A lot of people who are responding to this are brothers, fathers, sons, uncles, nephews," Graff explains. "They are sort of seeing family pass in the stairwells and lobbies of the World Trade Center, seeing family on the streets outside and then by that afternoon, you have family members tearing frantically into the rubble to find the people that they have lost."

As the South Tower was hit, air authorities had begun grounding planes, but two more airliners targeted by the terrorists were already in the sky by then. As the world watched New York, American Airlines Flight 77 was hijacked on its way from Washington Dulles Airport to Los Angeles. Barbara Olson rang her husband to tell him that her plane had been hijacked and all the passengers had been forced to the back of the aircraft. Flight attendant Renee May called her parents to say the flight was under attack. The plane descended rapidly and crashed into the Pentagon, causing a massive fire. Everyone on board was killed along with dozens inside the building. In total, 184 people lost their lives in that attack.

During her last phone call, Olsen had been told about the crashes in New York. On Flight 93, the fourth plane targeted by hijackers, everyone on board was aware of the attacks on the World Trade Center and the Pentagon. The plane had left Newark International Airport late and was on its way to San Francisco when the terrorists took control of it. There were just 33 passengers on board the flight and around a third of them phoned family or friends as the hijacking unfolded. They learned of the attacks on the Twin Towers and described similar circumstances on board, including violent attacks on cabin crew and reports of bombs on board. One passenger, Todd Beamer, made contact with an Airfone supervisor, Lisa Jefferson. In their brief conversation he explained that the passengers had decided to take on the hijackers. The two prayed together before Beamer was heard to say: "Are you ready? Okay, let's roll."

The plane's voice data recorder would later reveal fighting in the cockpit as the passengers attacked the hijackers. The terrorists decided to crash the plane,

ABOVE-LEFT
The recovery operation at all four sites hit by the planes on 9/11 went on for months. The last piece of debris was symbolically removed from Ground Zero in May 2002

The War on Terror

The global aftermath that we continue to live with today

Less than a month after the 9/11 attacks, the US launched air strikes on Afghanistan. The ensuing conflict there, aimed at al-Qaeda and the Taliban, would become known as the War on Terror.

The four planes had been hijacked by a total of 19 terrorists. Four of them were involved in the 'Hamburg Cell', a group that met in the German city and began to plot against America. Among them was Mohamed Atta, the lead hijacker. A chance meeting on a train with a member of al-Qaeda led to them going to Afghanistan, where they would meet Osama bin Laden.

The al-Qaeda leader had, for several years, been focused on a plot to hijack planes and fly them into targets in the US. The idea came originally from militant Islamist Khalid Sheikh Mohammed, who met bin Laden in Afghanistan in 1996 and proposed the plan. A wide range of motives for the attacks has been suggested but all come back to a desire to damage America. The final stages of the plan saw four pilots chosen, among them Mohamed Atta. Others were recruited as 'muscle hijackers' with the task of overcoming any resistance from the crew and passengers.

In the immediate aftermath of 9/11 bin Laden denied any involvement in the plots. However, the US government soon concluded that al-Qaeda was responsible. The Taliban, then in control of around three quarters of Afghanistan, also came under suspicion for not removing bin Laden from the country. US air strikes began the War on Terror, which saw the Taliban surrender grip on Afghanistan by December 2001.

However, they remained and eventually staged a resurgence. As the 20th anniversary of 9/11 approached, Afghanistan was taken over once more by the Taliban. On 15 August 2021 they took over the capital Kabul, once again seizing control of the country that had been the focal point of the War on Terror.

President Bush almost immediately began planning to strike at al-Qaeda and the Taliban in Afghanistan. He gathered his National Security Council at Camp David to co-ordinate the response

"The actions of the passengers and crew of Flight 93 is in many ways one of the proudest moments the US has of that day"

which plunged into a field at Shanksville, Pennsylvania. All 33 passengers and seven crew were killed.

"The actions of passengers and crew of Flight 93 is in many ways one of the proudest moments that the country has of that day," Graff tells us. "It seems pretty clear from historical evidence that that plane was headed towards the US Capitol, and you can imagine the destruction of US Capitol as a visible gash in the nation's psyche as extreme as the Twin Towers missing from the New York skyline."

Around the time that Flight 93 crashed, President Bush took to the skies in Air Force One. He would be in the air for much of the day as part of the plan to keep him safe from attack. He could only communicate by phone while his Defense Secretary, Donald Rumsfeld, was briefly missing from discussions as he rushed to help the injured at the Pentagon.

Air Force One was one of just a handful of planes in the sky as the morning of 11 September 2001 turned into afternoon. Before the Twin Towers had even collapsed, all civilian aircraft had been grounded. Graff describes the following hours as fearful: "Well into the early afternoon, 1, 2, 3 o'clock, the US government thought there still might be as many as a dozen more hijacked airliners still in the sky. That fear rippled out across the country, you saw skyscrapers evacuated in Boston, in Chicago, in Los Angeles. You saw the subway in Toronto closed. Well into that first day, well into that first night, people feared that the death toll might be 20, 30 thousand."

As that first night fell, Bush returned to the White House, where he addressed the United States from the Oval Office. "A great people has been moved to defend a great nation," he said. "Terrorist attacks can shake the foundations of our biggest buildings but they cannot touch the foundation of America. These acts shatter steel but they cannot dent the steel of American resolve."

In the following days, he would draw together a plan to strike at those held responsible for the attacks with al-Qaeda and its leader, Osama bin Laden, quickly identified. Congress passed the resolution 'Authorisation for Use of Military Force Against Terrorists' three days after the attacks and within a month the US had launched military strikes on Afghanistan, targeting al-Qaeda and the Taliban, which hadn't expelled the terrorist group from the country.

Meanwhile, in New York, at the Pentagon and in a field in Pennsylvania, recovery work continued to find the bodies of those killed. Some of the victims wouldn't be identified for years. They are honoured in memorials around the United States while 11 September was renamed Patriot Day, a reminder of all that was lost on a late summer morning when the sun rose in a clear blue sky and the United States changed forever.

TOP Firefighter Tony James weeps for the NYFD Fire Chaplain Mychal Judge, who became the first identified victim of 9/11

ABOVE Flags flew at half mast around the United States for weeks following the terror attacks

China's Shadow Empress

The extraordinary tale of Empress Dowager Cixi, the teenage concubine who rose to become the most powerful woman in China

Written by Jessica Leggett

Empress Dowager Cixi is unquestionably one of the most formidable and divisive figures in Chinese history. Cixi, a contemporary of Queen Victoria, was only the second woman to rule China after Empress Wu Zetian in the 7th century. So how did Cixi, the Emperor's lowly mistress, become the ruler of nearly a third of the world's population?

Cixi was born in Beijing on 29 November 1835. She was from a Manchu family, the ruling ethnic minority in China, and it is thought that her relatives were government employees. As a Manchu girl, she was spared the fate of having her feet bound, a practice that was performed on Han Chinese girls.

Unfortunately, little is known about Cixi's life prior to her entering the imperial court, although it is believed that she was taught how to read and write a little as well as sew. It's also been argued that her father would frequently seek her advice and valued her opinion just as much as a son's.

When she was 16 years old, Cixi was chosen as a concubine for the Qing dynasty's Xianfeng Emperor, who was four years her senior. With hundreds of candidates, being chosen was a great honour, and Cixi arrived in the Forbidden City in June 1852 to join the imperial harem. The harem had eight ranks and Cixi was placed in the sixth rank of 'Noble Lady' and so she was given the name 'Noble Lady Lan'.

Cixi was a low-ranking concubine in the harem, but everything changed when she gave birth to Xiafeng's firstborn son, Zaichun, on 27 April 1856. His birth was met with widespread celebration and Cixi became the second most powerful woman in the harem. She was given the title of 'Noble Consort Yi', after succeeding where the Emperor's other concubines and his primary consort, Empress Ci'an, had failed.

Even though Ci'an remained childless, Zaichun was officially considered her son and she was in charge of his upbringing rather than his biological mother, Cixi. Despite this, there was no tension as the two women got on well and they became close friends.

While Cixi had been rising through the ranks, China was in turmoil. The Taiping Rebellion, a bloody uprising against

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the Qing dynasty, had started in 1850 – two years before Cixi became a concubine – and it was still going strong. To make matters worse, China was also fighting the British and French empires in the Second Opium War, which erupted just under six months after Zaichun's birth.

China was losing the war, and by August 1860 the combined British and French forces were marching towards Beijing. Xianfeng dispatched envoys to conduct peace talks, but the meeting resulted in the arrest and torture of the British envoy, Harry Parkes, and his men by the Qing. In retaliation, Lord Elgin, who was leading the British Army, ordered the looting and burning of the Old Summer Palace. By this point, Xianfeng, Cixi and the rest of the imperial household had already fled Beijing.

Xianfeng's health had been deteriorating for some time, and in desperation after the Beijing attack, he turned to alcohol and drugs. On 22 August 1861, he died, leaving a five-year-old son to succeed him as Emperor. Before his death, Xianfeng had arranged for eight regents to act on Zaichun's behalf until he was old enough to rule alone.

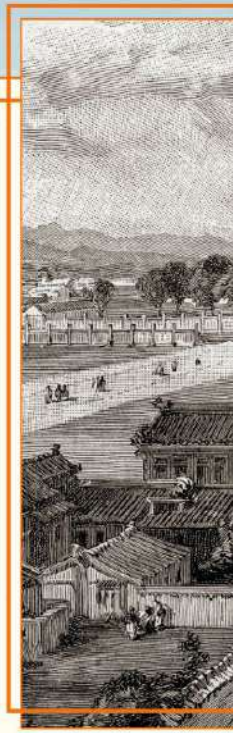
Following the death of their husband, Cixi and Ci'an were both given the title of 'Empress Dowager', and it was from this point on that Cixi became known as 'Empress Dowager Cixi'. Meanwhile, after ascending the imperial throne, her son Zaichun became known as the Tongzhi Emperor.

Soon enough, tensions between the Empresses Dowager and the regents were quickly escalating at court. As her husband's health had declined, Cixi became more involved in the court's political life. Yet the regents were uninterested in listening to a woman and chose to ignore her, which irritated Cixi. While Ci'an had no taste for politics, she was annoyed by the frequent confrontations with the regents and she often refused to attend court audiences, leaving Cixi to face them alone.

Cixi suggested to Ci'an that they oust the regents and take over the regency themselves, reigning together as co-regents. It was a risky scheme and the women knew that they would need powerful, male allies if they wanted to succeed. Cixi immediately began rallying support for their coup, including Xianfeng's half-brothers, Princes Gong and Chun. Gong, in particular, had ambitions for power and had been annoyed by the regents sidelining him.

In November, Cixi accused the regents of incompetency for their handling of the negotiations with Britain and France in the aftermath of the invasion of Beijing. The regents were dismissed and arrested for treason, with three of them sentenced to death by linchi, also known as 'death by a thousand cuts', a slow and painful way to die. Cixi, however, reduced these sentences in an act of so-called mercy, having the leading regent decapitated while the other two men were encouraged to commit suicide.

Cixi and Ci'an had successfully seized power at the ages of 25 and 24 respectively in what became known as the Xinyou Coup. Assuming the reins of the regency, it was announced that the two women would be in charge of making decisions, and they formed an effective partnership. Ci'an handled administrative matters such as official appointments, while Cixi revelled in politics and policy formation.



ABOVE-LEFT Empress Dowager Ci'an was Cixi's co-regent for two decades

ABOVE-RIGHT Cixi joined the Imperial Palace as a 16-year-old concubine

"Ci'an handled administrative matters such as official appointments, while Cixi revelled in politics and policy formation"

However, according to the ancient court laws, women could not attend imperial audiences nor speak with a man face to face. Consequently, Cixi had to sit behind the young emperor on the throne and she was obscured by a screen, a practice that became known as to 'rule from behind the curtain'.

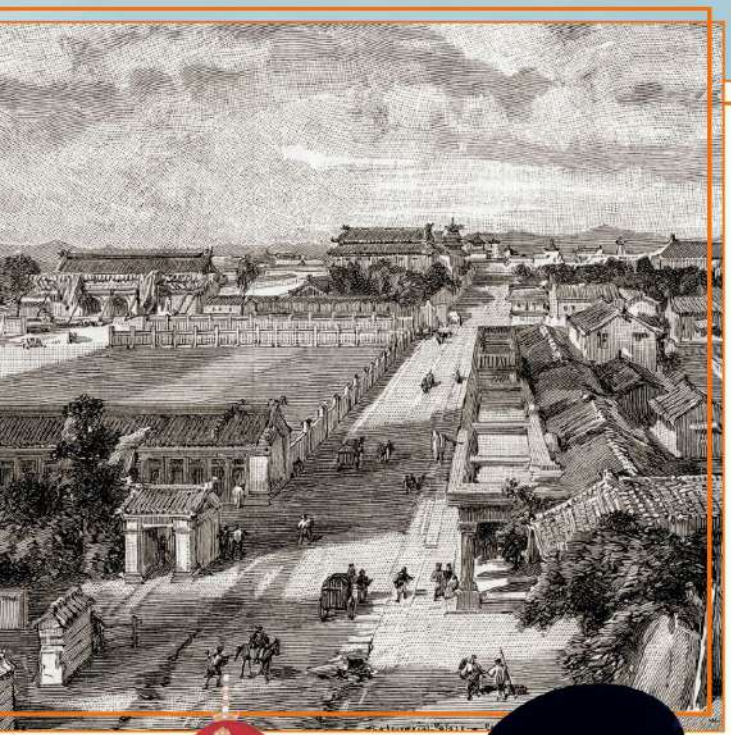
Prince Gong, who had been appointed as Tongzhi's Prince Counselor, backed the Empresses Dowager along with the Grand Council. But Cixi was the one who wielded the real power, as she demonstrated in 1865 when she stripped Gong of his title, fearing that he was becoming too powerful – she couldn't risk her power being usurped by someone else.

During the first few years of Cixi's regency, China experienced a period of revitalisation known as the Tongzhi Restoration. Despite her conservative views, Cixi recognised the need for China to modernise, and she looked to the West for both knowledge and trade opportunities, for which she established a customs service. Cixi also sought out people who would support rather than oppose her policies, making an effort to combat government corruption and maintain stability. It was during this time that the Taiping Rebellion was finally put down after 14 years.

Tongzhi married the Jiashun Empress in 1872 when he was 16 years old. While Ci'an approved of the bride, Cixi was opposed to the marriage because Jiashun's grandfather was one of the eight regents who had been deposed over a decade before. As Tongzhi failed to spend time with his concubines, Cixi grew more resentful of Jianshun, believing that the young couple were not dedicated enough to learn how to rule China.

Cixi, frustrated, eventually forced the couple to separate. Tongzhi, distraught and lonely, supposedly sought solace outside of the palace by frequenting brothels. He died in 1875, and while the official cause of death was smallpox, it was widely assumed

BELOW In 1863, Tongzhi issued a decree ordering the ministries to fully support the Empress Dowagers while he was ill



Sx © Alamy

that he contracted syphilis from visiting prostitutes. Since the Emperor had no children, Tongzhi's death caused a succession crisis. Tongzhi's four-year-old cousin, Zaitain, was chosen by Cixi to become the new Emperor. The young boy was the son of Prince Chun and Wanzhen, Cixi's younger sister, and after ascending the throne, he was known as the Guangxu Emperor. Guangxu was subsequently adopted by Cixi and Ci'an, who remained in their roles as regents.

The joint rule of Cixi and Ci'an had provided the stability that allowed China to begin its modernisation process. However, Ci'an's sudden death in April 1881 put an end to their partnership after two decades of working together. Cixi was suspected of poisoning her fellow Empress Dowager, but this has never been proven.

Guangxu married Jingfen, Cixi's niece, in 1889. Cixi announced her retirement from the regency and handing power over to the

ABOVE-LEFT Cixi acted as regent on behalf of her son, the Tongzhi Emperor

ABOVE-RIGHT Prince Gong was an ambitious man and a powerful ally of Cixi's

The Taiping Rebellion

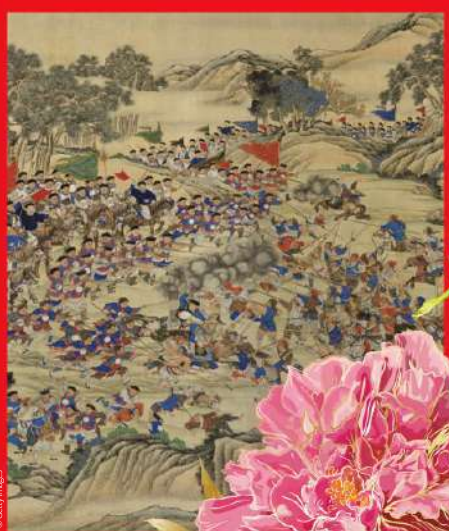
One of the bloodiest civil wars in history

The Taiping Rebellion was one of the most violent and important events in the history of China. It was led by Hong Xiuquan, an ethnic Hakka, who had failed the civil service exam several times. After falling sick, he claimed to have a number of visions of heaven and believed that he was the son of God and the younger brother of Jesus Christ, and that it was his duty to overthrow the Manchu Qing dynasty and reform China.

Hong began preaching his ideas across the province of Guangxi and his friend and follower, Feng Yunshan, founded a new religious group, the God Worshippers' Society, which particularly attracted peasants who were suffering from famine. Hong joined the God Worshippers himself and the Society expanded, with Hong eventually referring to himself as 'The Taiping King.'

In 1850, the Society declared the formation of the Taiping Heavenly Kingdom, marking the beginning of the rebellion, which eventually spread across the lower and central Yangtze region. Three years later, the rebels successfully captured the city of Nanjing, which they established as the new Taiping capital. Next, The Taiping rebels set their sights on capturing Beijing, but they did not succeed.

In 1864, Hong was found dead and it remains unclear whether he committed suicide or was murdered. A month later, Nanjing was eventually captured by Qing forces after 11 years of Taiping occupation. Ultimately, the Taiping Rebellion resulted in the deaths of – at least – an estimated 20 million people. Even though the Qing dynasty won, it was left extremely weakened by the rebellion and it is considered a factor in the dynasty's collapse less than five decades later.



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Rehabilitating Cixi

The Empress Dowager went on a propaganda campaign of her own

Cixi's reputation was severely tarnished after the Boxer Rebellion of 1900, both in China and around the world. Foreign visitors were invited to receptions at the palace in an attempt to improve her image. After her return to Beijing, she even invited the wives of foreign diplomats – whose lives had been threatened by the violent Boxers she had encouraged – to tea at the Forbidden City.

Between 1903 and 1904, a young photographer named Xunling was invited to take a series of staged photographic portraits of Cixi and her court, with the Empress Dowager becoming one of the first in the imperial court to engage with photography. These photos, which are the only ones of Cixi that exist, were rich in symbolism, emphasising her imperial authority and earning her the moniker 'the dragon lady'. These photographs, some of which were given as diplomatic gifts, show Cixi's face to the world and provide a rare glimpse into the imperial court.

In 1903, Sarah Conger, wife of the US ambassador to China, persuaded Cixi to have her portrait painted by American artist Katharine A Carl for the 1904 St. Louis World Fair. Carl spent nine months in the Forbidden City while she painted the Empress Dowager, creating one of the most famous images of Cixi. President Theodore Roosevelt later received the portrait from Cixi as a gift and he donated it to the Smithsonian Institution.

© Getty Images

Emperor, now that Guangxu was 17 and married. She retired to the new Summer Palace, which she had rebuilt following the destruction of the old one.

Disaster struck just a few years into Guangxu's personal rule. The First Sino-Japanese War erupted in July 1894 between Japan and China, primarily over the Korean Peninsula. While Cixi had developed the Chinese navy during her regency, Guangxu had halted naval and military development and maintenance. With a navy that was no match for the Japanese fleet, the Qing government was, unsurprisingly, defeated.

Guangxu and his government sought peace with Japan in February 1895, and the Treaty of Shimonoseki was signed two months later. China was required to pay Japan substantial war reparations and cede territory, including Taiwan, as part of the terms.

Guangxu believed that if the Qing dynasty was to survive, drastic reform was required following China's humiliating defeat and concessions to Japan. Under the influence of reformist Kang Youwei and his student, Liang Qichao, he began the Hundred Days' Reform in 1898. Guangxu issued numerous reform edicts aimed at modernising every aspect of Chinese society. Among these reforms, he wanted to abolish the old civil examination system and develop a constitutional monarchy, like those seen in Japan and the West.

Guangxu hoped to safeguard China's future, but his desire for broad reform enraged conservative officials, including Cixi. She staged a coup in September, putting Guangxu under house arrest at the Summer Palace and regaining control of the regency. Although Kang Youwei and Liang Qichao were able to flee abroad, Cixi arrested and executed six of their fellow reformers for their role in the Hundred Days' Reform.

It is often stated that Cixi imprisoned Guangxu permanently following the coup. Despite the fact that Cixi was in power, Guangxu kept his title of Emperor and continued to play a role in government. According to letters from officials and foreign diplomats, he attended court audiences and even made personal comments on memorials to the throne, the official communication to the Emperor.

Much of what has been circulated about Cixi over the last century or so, shaping her narrative, has been the result of Kang's

ABOVE The Boxer Rebellion significantly damaged Cixi's reputation

BELOW A German caricature depicting Cixi deposing the Guangxu Emperor

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ABOVE A photograph of Empress Dowager Cixi and her court

"Cixi's decision to accept reform, however, appears to have come too late"

propaganda. While in exile, he claimed that Guangxu had asked for help in securing his freedom and that Cixi would try to kill the Emperor, portraying himself as a heroic reformer forced out by the Empress Dowager. He also claimed that Cixi used funds from the Chinese navy to build her new summer palace, depriving the navy of the money it required to develop, resulting in China's defeat at the hands of Japan.

But Cixi had more pressing concerns than Kang's writings from abroad. The Boxer Rebellion erupted in November 1899, with rebels violently attacking foreign diplomats, missionaries, and Chinese Christians. Known as the Boxers, the rebels were members of a secret society, the 'Society of Righteous and Harmonious Fists', who initially opposed the Qing dynasty before focusing their vitriol towards foreigners. Cixi, seeing this as an opportunity to rid China of foreign interference, openly announced her support for them.

Cixi's support for the Boxers, predictably, led to an increase in their violent attacks. To put down the rebellion, the Eight-Nation Alliance – which included Britain, France, and Japan – occupied Beijing in August 1900. Cixi was forced to flee the city with the Emperor to Xi'an, where she stayed for the next 18 months.

After negotiations, the rebellion came to an end in 1901, with China being forced to pay a large indemnity to the foreigners for the revolt. Cixi even decided to issue an uncharacteristic 'decree of self-reproach' in which she accepted responsibility for the rebellion and blamed her poor judgement for it.

Cixi realised that China needed serious reform when she returned to Beijing in 1902. She began implementing a number of the reforms that she had stopped four years earlier with her coup. She abolished the examination system, abolished torturous punishments such as linchi, outlawed the practice of foot-binding, and worked to improve girls' education. Cixi even began issuing reforms to establish elected assemblies and move towards a constitutional monarchy.

Cixi died on November 15, 1908, just one day after Guangxu, after ruling China for nearly five decades. Guangxu had no children but Cixi had not trained anyone to succeed her, because she did not want to risk losing the power and influence that she had worked so hard to achieve. Cixi chose two-year-old Puyi, Guangxu's half-nephew, to succeed as Emperor shortly before her own death.

Cixi's decision to accept reform, however, appears to have come too late. Three years later, the Qing Dynasty fell apart, and Puyi was forced to abdicate in 1912, ending two thousand years of imperial rule in China.

Cixi's story is mysterious and speculative in many ways. Although revisionists have praised her efforts to modernise, she has been repeatedly vilified and subjected to damaging propaganda that blames her for Imperial China's demise. While Cixi had her detractors both during and after her lifetime, she was undeniably a powerful woman and a force to be reckoned with.

BELOW The funeral procession for Cixi in 1908

3x © Getty Images

8 THINGS YOU DIDN'T KNOW ABOUT

BLITZ KRIEG

The secrets of Germany's devastating military tactics in World War II revealed

Written by Dr Stephen Hart and Dr Russell Hart

During September 1939 to June 1940 the German armed forces (Wehrmacht) achieved three decisive Blitzkrieg ('lightning war') successes. First, in just 36 days during September to October 1939 the Germans, aided by the Soviets, conquered Poland. Second, during 60 days' combat in April-June 1940, German forces conquered Denmark and Norway, while also repelling an Anglo-French intervention. Finally, in just 47 days of fighting during May to June 1940 the Wehrmacht astonishingly conquered France, the Netherlands, Belgium and Luxembourg, while also driving the British Expeditionary Force back onto English soil. But here are some things you likely didn't know about Blitzkrieg and why it succeeded.

ABOVE German mechanised forces on a victory parade through Warsaw in 1939

© Alamy

BLITZKRIEG:
The Invasion Of Poland To The Fall Of France
edited by Dr Stephen Hart and Dr Russell Hart is available now from Osprey Publishing

© Getty Images

ABOVE German Stuka dive-bombers over Poland in 1939

1 THERE WAS NO SUCH THING AS 'BLITZKRIEG' WARFARE

Western journalists first coined the phrase Blitzkrieg during autumn 1939 to describe the fast-paced German mechanised operations seen in the Polish campaign, but it was not a term used in German military thought. Throughout World War II the key German doctrinal work remained *The Command of Troops* (1936). Later, as the Western Allies tried to comprehend these early German triumphs in the war, they became fixated with what they viewed as the revolutionary German military doctrine of Blitzkrieg, seemingly built around massed armour and Stuka dive-bombers.

But what did the term Blitzkrieg actually identify? It described an operational method that utilised rapid, strategically concentrated all-arms armoured forces. Blitzkrieg envisaged that spearhead ground formations, backed by air strikes, would quickly break through the enemy's border defences by exploiting surprise, shock, speed and mobility. Once the panzer divisions had smashed through these initial defences, they would conduct fast, bold, risk-embracing strategic deep-penetration operations. These swift armoured advances deep into enemy territory, ignoring exposed flanks, would overrun enemy rear-area headquarters, depots, transport nodes and reserve forces' assembly areas. This would inflict dislocation, paralysis and shock on the enemy. The tempo and momentum that the German panzer divisions developed were greater than that achieved by their enemies. The rapid execution of German operations enabled their forces not only to generate tempo and momentum, but also to get inside their enemies' decision-making cycles. This helped paralyse their enemies' reactions, largely by rendering any response out-of-date.

Instead of being a widely accepted German doctrinal approach, Blitzkrieg was an operational method developed by just a few forward-looking commanders (like Heinz Guderian and Erwin Rommel). In these campaigns – particularly the 1940 Western one – these apostles of fast-paced mobile operations proved the validity of their radical vision by securing success in battle. These triumphs were secured despite the qualms of the more conservative German commanders. These officers remained worried about the vulnerable flanks these rapid panzer advances created; to mitigate this risk senior commanders tried to halt the panzer advance. But such risk-aversion violated the key tenets of Blitzkrieg. Only by continuing to advance quickly could the panzers keep generating surprise, momentum and tempo while remaining inside the enemy's decision-making cycle. The exposed German flanks were not a problem if the enemy was too overwhelmed to counter-attack these flanks. This offensive approach was what the term Blitzkrieg referred to.

2 HITLER'S RECKLESSNESS WAS KEY TO SUCCESS

The key event that led to Germany's implementation of Blitzkrieg in 1939-40 was the rise to power of Hitler's Nazi Party in 1933. The violently nationalistic, militaristic, racist and anti-Semitic Nazi movement, led by Adolf Hitler, adopted foreign policy objectives that were very different to those of Weimar Germany. Hitler viewed war as the Nazi state's preferred policy instrument in its drive for territorial expansion. The Nazis wished to regain the 'German' lands lost in the 1919 Versailles Treaty, and also to conquer eastern Europe to provide 'Living Space' for an economically self-sufficient future German nation. Hitler needed an offensive military capability to deliver these aggressive foreign policy objectives.

Tossing aside the Versailles agreement, Hitler embarked on a massive German rearmament programme. The development of German mechanised formations from 1935 fitted nicely within the Nazi mind-set that raw offensive military power could be used to reshape Europe. Propelled forward by Hitler's fervent approval and by re-armament, during 1935 the German Army formed its first three panzer (armoured) divisions. These were well-balanced formations, built around a brigade of tanks, together with motorised infantry, semi-motorised artillery and anti-tank guns, as well as other mobile supporting arms (such as engineers, recce forces and a Luftwaffe air-support liaison detachment).

In addition, a key element to the advent of Blitzkrieg was Hitler's reckless and optimistic commitment of Germany to war. The German military had not performed impressively during its 1938-39 movements into the Sudetenland, Austria and Bohemia-Moravia. This led many senior German commanders to doubt the overall capabilities of the armed forces; ignoring such doubts, Hitler argued that Germany's enemies were even less well-prepared for conflict and recklessly committed Germany to war against Poland in September 1939.

3 THE TACTIC WASN'T INFALLIBLE

Although capable of delivering rapid, decisive victories against unprepared opponents, Blitzkrieg remained a very demanding form of offensive warfare. The tactic had inherent flaws that were obscured by the Germans' triumphs of 1939-40 and subsequent Allied operations targeted with increasing effectiveness the deficiencies within Blitzkrieg. Success for the German forces depended on surprise, momentum, swift decision-cycles, adequate resupply, appropriate all-arms and inter-service co-operation, good situational awareness and flexibility. Increasingly, from late-1941 onwards, the battlefield situation altered and the Allies began to more effectively counteract and defeat this Blitzkrieg approach. The intended target of a Blitzkrieg attack 'merely' had to slow down the invasion to increase its chance of not losing. In contrast, the Germans had to maintain their grip on the initiative and keep generating and exploiting surprise and momentum if they were to have any chance of victory.

To successfully maintain tempo and momentum the Germans had to exploit fleeting opportunities (such as an unguarded bridge). They also needed to avoid, outflank or encircle enemy reserves. This placed particular demands on appropriate situational awareness and effective sub-unit leadership. If the Germans lacked adequate command tanks and scouting aircraft to allow their spearhead commanders to obtain sufficient situational awareness, Blitzkrieg success was much harder. German command of the skies was therefore a crucial part of Blitzkrieg operations; it enabled aircraft to provide fire-support for the contact battle, rear-area interdiction, air assault, air reconnaissance and air transport missions. Once the Allied forces began to wrest air superiority away from the Germans, Blitzkrieg attacks became increasingly difficult to pull off.

Blitzkrieg forces also needed an appropriate force structure, but throughout the war the Germans never enjoyed an entirely adequate force structure and weapons inventory. In Poland, for example, Germany's panzer formations lacked adequate numbers of half-tracked armoured personnel carriers, mobile artillery and the heavier combat tanks. For most of the war, moreover, the panzer divisions only fielded limited numbers of self-propelled artillery pieces. As the Allies increasingly harnessed their industrial might, they gradually created force structures and weapon strengths that eventually surpassed the Germans' as the building blocks for Blitzkrieg-style operations.

One final limitation of Blitzkrieg was that the rapid speed and large scale of the German advances placed enormous strain on their logistical resupply structures. The Germans struggled to deliver effective logistical sustainment of operations even when strategic victory required just a few envelopment or encirclement operations (known as 'cauldron battles'), as in Poland (1939) and the West (1940). When during 1941 strategic defeat of the Soviets required a dozen envelopment operations, the sheer scale of the battle-space made it impossible for the Germans to adequately resupply their forces long enough for them to reach strategic victory over the enemy.

4 BLITZKRIEG WASN'T A NEW IDEA

The armed forces defeated by the Blitzkrieg of 1939-40 believed that they had been overwhelmed by a revolutionary form of warfare. In reality, the successful German strategic and operational approaches utilised during the 1939-40 campaigns was more of an evolution of traditional Prussian/German practice than it was revolutionary. Firstly, Blitzkrieg attempted to implement the traditional Prussian/German strategic approach of deep penetration operations, envelopment and encirclement movements, and the 'decisive battle of annihilation', as epitomised by the 1914 Schlieffen Plan.

Secondly, the doctrinal roots of Blitzkrieg lay in the belligerents' experiences of the 1914-18 Great War. Ideas about future mobile warfare arose out of the costly impasse of trench stalemate that emerged on the Western Front. One such precursor was the German development and use of 'Storm Troop' tactics during 1917-18. Elite 'Storm Troop' units, powerfully reinforced with organic fire-power, used infiltration tactics to enter enemy trenches by surprise and overcome the defenders. These 'Storm Troop' units relied upon offensive speed and flexibility to confuse, paralyse and out-manoeuvre the enemy. The panzer divisions – well-balanced all-arms armoured formations – that spearheaded Blitzkrieg were the late-1930s doctrinal descendent of such 'Storm Troop' tactics.

ABOVE The speed and ferocity of Germany's tank offensives were key to their early success

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5 STRUCTURAL WEAKNESSES AMONG THE ALLIES ALLOWED IT TO WORK

The German 1939-40 Blitzkrieg campaigns achieved decisive success by effectively exploiting some or all of the following Allied flaws or deficiencies: strategic mal-deployment; slow, centrally directed command/control and decision cycles; and poor all-arms, inter-service and inter-Allied co-operation. The German invasion of Poland effectively exploited the latter's strategic mal-deployment. Having to defend their nation on four sides, while in particular resisting any German assault from the west to shield its key assembly areas, left the Poles vulnerable to German envelopment operations from the north and south. Likewise, in the 1940 Western campaign the German plan effectively exploited Allied strategic mal-deployment. The powerful German secondary push into Belgium and the Netherlands triggered the Allied Dyle-Breda Plan, sucking France's strategic reserves north and, through combat, fixing them there. Meanwhile, the German feints against the Maginot Line defences fixed powerful French forces in the south. Then the Germans executed the killer blow in the weakly defended Allied centre. Here, massed German armour infiltrated through the Ardennes, smashed their way across the River Meuse and raced toward the English Channel coast, cutting the Allied front line into two.

By operating at such a high tempo, the Germans got inside the slower Allied decision-making cycle. The Allies executed centralised top-down command systems, where distant senior commanders struggled to react swiftly enough to German actions. Equally Allied doctrine – such as the French Army's firepower-reliant concept of the 'Methodical Battle' – operated at a lower tempo and momentum than Blitzkrieg, meaning the Allies were always trying to catch up with the more rapidly unfolding German actions. Allied inter-service cooperation, most notably air support for the ground forces, was less effective than the Germans'. Finally, in the 1940 Western campaign the Germans exploited the politico-military tensions that existed between the five Allied belligerents that significantly weakened Allied resistance.

6 THE TACTIC BENEFITTED FROM YEARS OF PREPARATION

During 1918-1939 the German Army (Reichswehr) slowly evolved to a point where it could implement Blitzkrieg in 1939–40. This evolution reflected wider doctrinal developments around the world as a few far-sighted British, French, American and Soviet tacticians explored ways in which the tank – with its unique mix of fire-power, protection and mobility – could swiftly apply Storm Trooper tactics on a geographically larger scale to create mechanised warfare. The limitations the 1919 Versailles Treaty imposed on an emasculated, defensively minded Reichswehr compelled it to embrace innovation. During the 1920s the Reichswehr's doctrinal developments focussed on the use of speed, mobility and all-arms co-ordination to offset its numerical inferiority. The army transformed its obsolete cavalry divisions into a semi-motorised strategic reserve and conducted its first covert overseas tank research.

The key surge forward in the German military's peacetime journey toward Blitzkrieg occurred during the Nazi era (1933-39). The Nazis' desire to use war to achieve territorial gains triggered massive rearmament. This programme included the production of PzKpfw I and II light tanks, as well as the design of the heavier PzKpfw III and IV combat tanks. Subsequently, during 1935 the Reichswehr formed its first three panzer (armoured) divisions. Grouped under the XVI Corps (Motorised), this force became the world's first mechanised corps intended for strategic offensive operations. Subsequently, during 1936-39 the German Army – aided by its takeover of Czechoslovakia – further massively expanded its armoured force. By August 1939 the Germany Army fielded a total of 3,197 tanks, organised into six armoured, four light-mechanised, one cavalry and four motorised infantry divisions.

ABOVE-LEFT The achievements of Blitzkrieg were made possible in large part by a massive tank manufacturing operation

ABOVE-RIGHT Nazi forces making their way into Belgium

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8 PANZAS AND STUKAS WEREN'T AS IMPORTANT AS PEOPLE THINK

Panzers (tanks) and Stukas (dive-bombers) were central elements of successful Blitzkrieg. Moreover, they were the most visible symbols of Blitzkrieg to those who fought against it. However, they were just two cogs in a much bigger machine and their role has been somewhat exaggerated. The panzer divisions' combat power lay not primarily in their mass of tanks but in them being well-balanced all-arms forces that combined tanks, motorised infantry, engineers, and motorised artillery operating on a fast-paced offensive doctrine. The rapier edge of the panzer divisions was further supported by well-equipped combined-arms infantry divisions and conventional artillery units. Additionally, the Luftwaffe provided a wide range of close air support, not just precision tactical strikes by Stukas but strafing attacks by fighters too. The Luftwaffe also undertook important aerial reconnaissance missions. Special forces, including the elite air landing glider and parachute air assault forces, also played central roles in helping the deep penetration of Allied defences before the enemy could react effectively.

7 MANY GERMAN OFFICERS DIDN'T UNDERSTAND IT

The devastating 1939-1940 Blitzkrieg successes were largely achieved by a few far-sighted apostles of fast-paced mobile warfare. As a partly novel and untested form of warfare, scepticism existed among the more experienced senior army and army-group level commanders; these officers' experiences of war were profoundly shaped by the gruelling slower-tempo battles of attrition that occurred on the Western Front during the Great War. These senior officers were not only sceptical about the prospects of decisive success through Blitzkrieg, they remained more tactically risk averse. Throughout the Polish and Western campaigns, senior commanders, like von Rundstedt and von Kleist, became deeply concerned about the vulnerable flanks created by the rapid panzer advances. Indeed, the Polish counter-offensive on the Bzura and the Anglo-French counter-strike at Arras sent shockwaves of concern through the more conservative senior officers, leading to temporary halt orders.

Moreover, the Western campaign was conceived as an operation to penetrate the Allied frontier defences and the Germans remained fuzzy as to precisely what they should do if and when they achieved a decisive operational breakthrough. Therefore, the rapid collapse and capitulation of France after six weeks surprised many within Germany, particularly since France had stubbornly held out for four years during the Great War. Even Hitler was surprised at the alacrity and totality of the Blitzkrieg triumph in the west. But then again, he was a reckless gambler who was willing and able to risk all in a massive, rapid offensive that overwhelmed his less well prepared, organised, motivated, trained and equipped opponents.

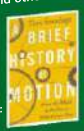
BELOW A German tank outfitted with a flamethrower, part of the 44th Infantry Division of the Wehrmacht

CARS: DRIVING INTO HISTORY

EXPERT BIO

TOM STANDAGE

As well as his work for *The Economist*, Tom Standage has also written for the *New York Times*, *The Guardian*, *Wired* and other publications. He has a degree in engineering and computer science from the University of Oxford and has written several other bestselling history books. To purchase a copy of *A Brief History of Motion* visit: www.bloomsbury.com



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Tom Standage reveals the early evolution of the motor car from its disjointed steam and bicycle origins to the Ford Model T

Written by Tom Garner

The car is an inescapable fact of modern life. Along with other motorised road vehicles, it can be used for personal journeys, power economies and move entire armies. In transportation terms, it has completely changed the way humanity has administered, laid out and policed itself since it was invented in the 1880s.

The car's ubiquity has been revolutionary and transformed the human experience in just over 100 years. Its presence has had a significantly positive and – as climate change makes increasingly clear – negative impact on the world. Today, the relationship between people and cars is under ever increasing scrutiny. However, compared to the current debate, the car's origins are less well known and its early history is intriguing and often surprising.

Tom Standage, the author of the recently published *A Brief History of Motion,* is an expert on historical engineering and technology. His new book explores the confused and bumpy road that led to the invention of the car and how it became an essential part of the modern world's development. He discusses steam-powered road vehicles, why the inventions of cars, bicycles and railways are inextricably linked, and how smartphones could shape the future of transport.

STEAM & BICYCLES

How old is the concept of the car?

The word 'car' has meant different things at different times. At the end of the 19th century, a car was a 'streetcar,' ie a tram. Before streetcars there were 'horse cars', which were omnibuses pulled by horses on rails. The word 'car' became applicable to what was previously called a 'horseless carriage' or possibly a motor car. The 'automobile', as they call it in America, was itself an import from the French.

The history of this is deep and has a very tortuous path with lots of detours that gets us to the car. Steam engines, buses and various kinds of carriages played important parts but the car is really descended from the bicycle and not the steam train.

We generally think of the 1886 Benz Patent-Motorwagen as the first proper car. Carl Benz built an entirely new vehicle around an internal combustion engine and used bicycle parts to do it. It was really a motorised bicycle so this is what makes the car interesting. Its innovation required lots of people to try different things and, although this seems obvious in retrospect, it wasn't at the time.

ABOVE More than any other vehicle before it, the car owes its existence to the bicycle

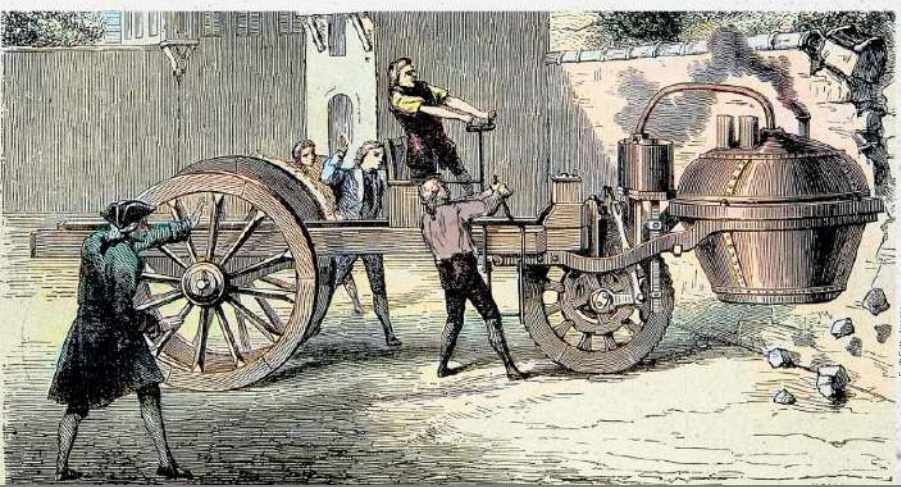
INSET Richard Trevithick built the 'Puffing Devil', a steam engine on wheels, in 1801

When were the first steam-powered road vehicles developed?

The first steam engines were large, fixed and used to pump water out of coal mines. James Watt figured out a way to make them a lot smaller in the 1760s, and then you had the first attempt by a Frenchman called Nicolas-Joseph Cugnot to build a self-powered steam vehicle. You could say that it was the first car but it didn't go very fast. It only travelled at about 5kph and the problem was that its steam engine was the size of a modern Fiat 500. It was a huge thing stuck to the front wheel of this vehicle and when you wanted to steer you had to swing the entire steam engine. It was very big, slow, heavy, hard to steer and trashed the roads it went on. It actually crashed almost immediately into a wall.

The French Army was funding this because they thought it would be an easier way to pull cannons than horses. However, they gave up and not much happened until 1801 when Richard Trevithick built the 'Puffing Devil', which was much smaller. It was basically a steam engine on wheels but had similar problems. It caught fire and he built another one called the 'London Steam Carriage' to carry people. He trialled it in London in 1803 but (like Cugnot's vehicle) it carved up the roads. It was really heavy, hard to steer and crashed.

What Trevithick then said was: "We can fix the steering and road problem if we just put the vehicles on rails." There were rail systems in mines but they were pulled by horses. Mine owners said: "Perhaps we can use steam power ▶



BELOW Nicolas-Joseph Cugnot built the world's first full-size and working self-propelled mechanical land vehicle in 1770

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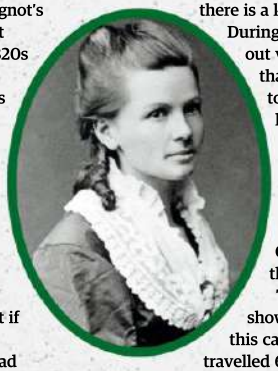
instead?" So Trevithick built a steam engine for one of those people and proved that it worked. This ultimately led to steam railways.

Steam vehicles like Cugnot's and Trevithick's were not reliable but during the 1820s two interesting things happened. Steam engines become more reliable and the 'omnibus' was invented. The omnibus is a horse-drawn vehicle that can seat about a dozen people. It started to become popular and people realised you could make omnibuses more efficient if you put them on rails.



At that point, people had given up on 'land locomotives' and they didn't like the idea of putting one on an omnibus. They were noisy, smelly, carved up roads and could explode. However, if you took the idea of the horse-drawn, rail omnibus then you had a faster, more efficient service. In America, these 'horse cars' were electrified and so you had trams.

Meanwhile, there was the railway and bicycle boom. By the 1890s there were trams, fast trains and bicycles for personal transport. The big question was, "Could you have a form of transport that was personal but also fast?" The answer ultimately became the car.

HORSELESS CARRIAGES

The German engineer Carl Benz patented the first car in 1886. What was the importance of his wife Bertha to the car's development?

Benz's first car was a three-wheeler and he wanted to perfect it because it wasn't very good going uphill and the brakes were rubbish. Bertha stole the prototype and went on the first ever road trip to see her mother. She didn't tell her husband but took her sons to help her push it uphill.

This trip has been mythologised but there is a kernel of truth to it. During this trip, Bertha figured out various things such as that the brakes needed to be better and a better lower gear was required to get up hills. She actually stopped at a cobbler's and had him put leather on the brake pads to improve them. Carl then adopted that approach.

The fact that Bertha showed you could use this car for a road trip (she travelled 65km) gave Carl the confidence that he actually had a sellable product. He put it on sale at a trade fair and people were amazed. He started selling them, along with the rights, to other people around Europe so they could manufacture them.

What were early cars like?

Early cars were internal combustion engines fitted to carriages, which is why they were called 'horseless carriages'. They didn't have doors, roofs, windows, weren't lockable and had carriage lamps. You steered them with a tiller and you wouldn't want to go out in the rain with them, so they weren't very practical.

At the beginning of the 20th century there were two kinds of cars. There were big, expensive 'touring cars' that were sometimes called 'road locomotives'. They had a big engine at the front, could go very fast and far and get over bumpy roads. Then there were smaller vehicles called 'runabouts', which were lightweight, wooden carriages that would have been pulled by horses but were modified to have an engine. You could use them for short trips on good roads but you wouldn't want to go on a long trip with them because they had a tiny fuel capacity. However, they were relatively cheap so you could buy one for driving around town.

INSET As well as being the first female car driver, Bertha Benz (1849-1944) was the first driver of an automobile over a long distance, and invented brake lining in the process

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BELOW Benz and a companion driving The Benz Patent-Motorwagen, which began a car revolution and eventually led to the creation of the multinational corporation Daimler AG, which is better known as Mercedes-Benz

CARL BENZ'S REVOLUTIONARY VEHICLE

In January 1886, transport history changed forever when Carl Benz patented the world's first true car

Availability

Once it went on the market, buyers could purchase a Patent-Motorwagen for 600 Imperial German marks, although only approximately 25 were manufactured during 1886-93 by Benz's company (Benz & Companie Rheinische Gasmotoren-Fabrik).

Frame

Benz built a large tubular steel tricycle frame around his engine and used bicycle parts within the design, including drive chains and wire-spoked wheels. This intentional design around an internal combustion made the resulting Patent-Motorwagen unique.

Engine

A German engineer, Benz had invented the car hot on the heels of two other German automotive engineers: Goettlieb Daimler and Wilhelm Maybach. In November 1885, Daimler and Maybach had designed a small, light internal combustion engine, which they attached to a bicycle. This was the first motorcycle but Benz went further by developing his own engine.

Illustrations by Adrian Mann

Speed

The single-cylinder, four-stroke engine was installed horizontally at the rear with an output of 0.75 hp (0.55 kilowatts). With seating for just a driver and passenger, there were only three wheels and the car was steered using a tiller. It only had a top speed of approximately 10mph (16.1kph) and could easily tip over while cornering.

"The numbers are amazing. America went from having 800 cars in 1900 to eight million in 1920"

How quickly did the car replace horse-drawn and steam vehicles?

It wasn't really directly competing with steam. As steam trains became more popular they increased the demand for horses to move stuff within cities. Rail companies often ran the biggest stables in a city and there were fleets of horse-drawn carriages that were used for delivery or as taxis.

More horses meant that people were looking for alternatives by the 1890s because of the mess and pollution. It was a very similar situation to today where we recognise that car pollution is unsustainable. Department stores were actually some of the earliest adopters of steam or electric automobiles because they needed transport that moved around within cities quite easily.

The number of horses dropped extremely quickly in America. Although it is an outlier, America was the perfect place for cars to take off. Cars initially had no roofs and places like California had warm weather, rich people and cheap gas. You also had big, wide roads whereas adapting cars to medieval street plans in Europe was a lot harder.

The numbers are amazing. America went from having 800 cars in 1900 to eight million in 1920. That's a thousand-fold increase, which is the same as doubling every two years. We associate

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that rate of growth with computers but it happened with cars at the beginning of the 20th century. It was a bit slower in other parts of the world but during the first decades of the 20th century people switched to cars. They took up less space, were not producing horse manure and were cheaper to run.

ELECTRICITY & MASS PRODUCTION

Why is the Ford Model T so important for car history?

Henry Ford's idea was: "What if you had a car that was as reliable and powerful as a touring car but as cheap as a runabout?" That's what the Model T ended up being because he used vanadium steel to build a very light, small but powerful engine. It wasn't quite the cheapest car when it came out in 1908 but it had this amazing engine that could get it over rough country roads. It became really popular and people customised them, such as farmers hooking them up to machinery.

This new kind of car was cheaper, powerful and more versatile. Ford then drove down the price by optimising manufacturing. The Model T came out in 1908 but Ford didn't establish a moving production line until 1913, and that was just for the car's magneto ignition. However, the moving production was so efficient that he eventually moved the whole car production onto that.

This caused an incredible collapse in the price of the car and an explosion in volume. By 1921, Model Ts were 57 percent of the cars manufactured in the world! However, if you look at a Model T now they are very weird cars. It has three pedals – none of which is the clutch, accelerator or brake. If you put a modern driver in a Model T, it would end in tears.

Nevertheless, it was the first successful car 'product'. There were hundreds of carmakers at the beginning of the 20th century but the Model T found a formula that you could mass produce. It's the combination of the product itself being extremely desirable and then the method that was used to make it could be copied by other carmakers. It was the 'iPhone moment"' of car production.

The history of electric cars is surprisingly old. Why did they fail to compete with petrol cars at the beginning of automotive history?

At the beginning of the 20th century, electric cars were very briefly more popular than internal combustion engine cars in America. However, they had very bad batteries. Electric cars are only good today because of batteries that were initially developed for laptops and camcorders.

Because of their bad batteries, they were initially marketed as 'Women's Cars'. This is because you didn't have to be 'strong' to throw the starter handle and electric cars weren't messy. It was assumed that 'real men' (who were all supposedly mechanics) would put up with a slightly less reliable petrol car in return for better performance. In those days when you bought a car, you had a set of tools that came with it because you were expected to look after it yourself.

The other 'girly' thing about electric cars was that men liked buying them for their wives. It meant that they couldn't get very far because the battery would run out. This is why some people think

> "Electric cars were very briefly more popular than internal combustion engine cars in America"

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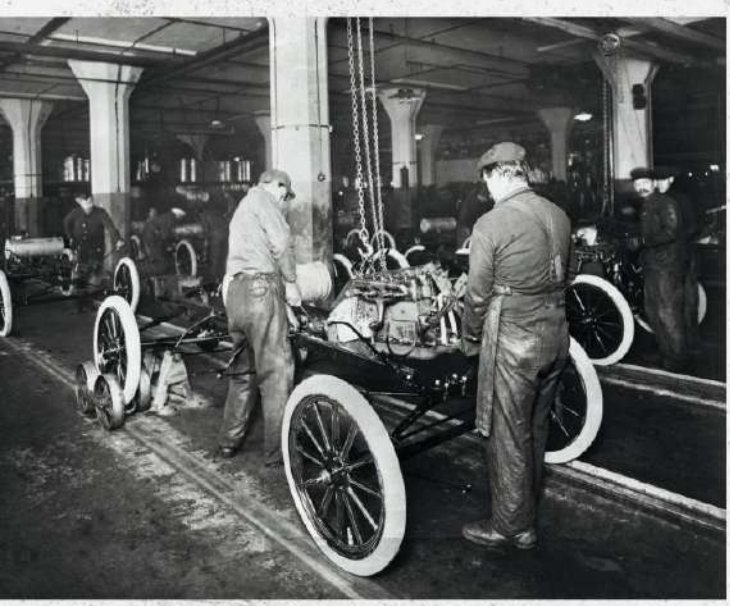


ABOVE Early electric cars were specifically marketed towards women as runabout town vehicles

OPPOSITE Cars were considered a solution to ease traffic problems created by horse-drawn vehicles in cities

LEFT Workers assemble a Ford Model T on the assembly line at the Highland Park Ford Plant in Michigan, United States, c.1913

RED, AMBER, GREEN

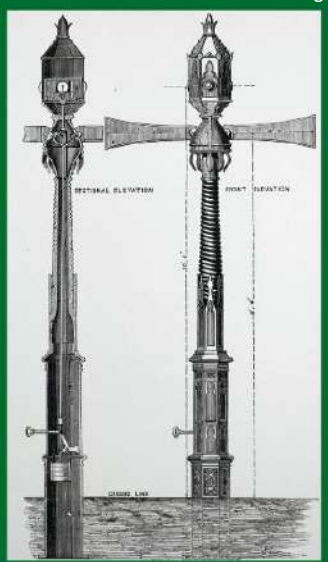
Traffic lights are older than cars and have a long history stretching back to Victorian London

An integral part of road infrastructure worldwide, traffic lights are inextricably linked with cars to control flows of traffic. However, their invention actually preceded the automobile by several decades. The very first traffic lights were installed outside the Houses of Parliament in London in 1868 on Westminster Bridge by a railway engineer called John Peake Knight. Using a system that was based on railway signalling, semaphore arms were mounted on a tall post that could be manually raised by a policeman. Raised arms stopped horse-drawn vehicles and allowed pedestrians to cross the road while lowered arms performed the opposite function.

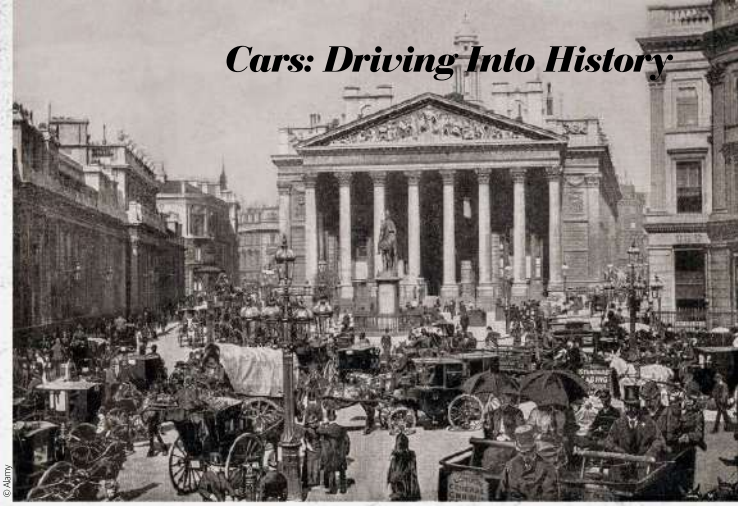
What made Peake's traffic system unique was that the arms were accompanied by coloured gaslights at night. This included red for 'stop' and green for 'caution'. The lights did improve traffic flow but on the night of 2-3 January 1868, the gaslight exploded and killed the operating policeman.

Traffic lights were revived in the United States during the early 20th century. The first electric traffic light system was invented in 1912 with red and green lights. This was quickly followed by the first electric traffic signal system, in Cleveland, Ohio in 1914. Modern traffic lights as we know them today were introduced in 1917 when William Potts introduced the amber light as part of the first four-way, three-colour system.

Despite the American innovations, traffic lights were not reintroduced to their country of origin – Britain – until 1926 when three-colour lights were installed in Piccadilly, London.



ABOVE An engraving depicting the first traffic lights by the Houses of Parliament



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that Henry Ford (despite building the most successful car in history) didn't give his wife a Model T and instead bought her an electric car because that's what women were expected to drive. There is sexism in the history of the car but Bertha Benz is the original example of why this is wrong.

'INTERNET OF MOTION'

What do you think the future of the car will be?

There are a lot of problems with cars. Electric cars fix some problems but we need to avoid falling into an historical trap. The mistake that people made in the 1890s was that a horseless carriage was going to fix all the problems to do with horse-drawn vehicles. They thought cars would take up less space, reduce traffic and pollution and stop road accidents like horses kicking people. All these predictions turned out to be wrong and cars turned out to be something completely different. The mistake we could be making with electric cars is if people say: "We'll replace the petrol engine with an electric one and everything will be the way it was before."

Getting rid of the petrol engine does stop greenhouse gases to some extent but you still have to charge the car from sustainably produced electricity. We're still not using 100 percent renewable energy but it doesn't address the main problem. We only use cars four percent of the time and they mostly just sit around so they're a waste of space and money. We pay for them but it's becoming more and more inconvenient to own a car, and rightly so.

What's interesting is that we've seen this flowering of alternatives to cars during the last ten years. It has become more feasible for more people to not have cars, except for those who live in rural areas. Most who live in cities in particular can live without them. They can use public transport, car-sharing clubs, ride-hailing, scooters and electric bicycles. You can stick together all these modes of transport by using your smartphone. This is what I call an 'Internet of Motion' because it's much easier to use buses when your smartphone tells you when the next one is leaving.

We're seeing more attempts to knit together these various non-car forms of transport into a coherent alternative. We're not there yet but it's definitely getting better. It's really telling that young people are learning to drive less and doing it later because these days owning a car is more hassle than it's worth for a lot of people. I think that's good and ultimately we do want fewer cars on the road. We're going to look back at car ownership and think that was very weird. We're also going to be astonished at the level of car accidents and deaths that we were prepared to put up with.

What has the car's overall impact been on the world?

It has influenced all sorts of things but I think it imprisoned us while making us feel free. There are aspects of owning a car that do give you freedom. If you pay to own a car, you have the freedom to jump in and go places. However, in practice you'll get stuck in traffic and you have also tied yourself down for that freedom.

There's a quote: "The car freed us in the 20th century but in the 21st century we're going to free ourselves from the car." The car is still a symbol of freedom and liberation, but that's an echo from the 1920s and I wonder whether young people still think that. It's very contradictory and hard to encapsulate but I think that's what it is. It's that paradox of a technology that both liberates us and imprisons us.

General Kurt Student, who led the attack on Crete, inspects his paratroopers

Greatest Battles

BATTLE OF CRETE

CRETE, 20 MAY – 1 JUNE 1941

Written by Jonathan Trigg

One-hundred kilometres from the mainland, Crete is the second-largest of the Greek islands, a strip of land measuring 258km from east to west and just 12km at its narrowest. Dominated by the White Mountains that form its spine, it has a rich history of invasion and occupation, with the Romans, Arabs and Venetians among others all having left their mark, especially on the likes of Khania, Rhethymnon and Heraklion on its more populated northern coast. Historically fought over, it had been a relative backwater for years until WWII erupted and thrust it centre stage in the spring of 1941.

THE MEDITERRANEAN WAR

Fascist Italy took the lead for the Axis in the Mediterranean, its military weakness exposed

© Getty Images

by the December 1940 British offensive in the western desert that almost wiped out Mussolini's forces in North Africa and saw more than 130,000 dispirited Italians shuffle into captivity. However, with total victory within its grasp, British Middle Eastern Command was ordered by London to send its best troops to Greece, where an earlier failed Italian invasion had forced Hitler's hand. There, on the morning of Sunday 6 April 1941, Generalfeldmarschall Wilhelm List's 12th Army crossed the Greek frontier and proceeded to drive the British into a hasty retreat that ended just over three weeks later with the evacuation of the British force back to Egypt.

Not all, however, arrived in Alexandria – some were dropped off in Crete instead. There, they joined the existing garrison and provided a much-needed reinforcement in numbers, but not much else, the defeat in Greece having cost the already miserly equipped British and Commonwealth forces 8,000 vehicles, 233 guns, 104 tanks and most of the rest of their heavy equipment. Most disastrous of all, the Royal Air Force had lost 209 irreplaceable aircraft in the skies above Greece, meaning it had barely a handful of modern fighters and bombers to support the ground troops and Royal Navy.

IMPERIAL LION VS NAZI EAGLE

Nevertheless, the British Prime Minister Winston Churchill thought he had an answer – General Sir Bernard Freyberg VC. Freyberg was a living legend. A New Zealander nicknamed the 'Salamander' by Churchill for his determination to be in the heat of the action, he had won a Victoria Cross in World War I and commanded the 2nd New Zealand Division in the Greek campaign. Courageous, honourable and tough, he was also prone to mood swings and trapped in a World War I mentality that led him to believe the threat to Crete would be from a seaborne invasion.

His opponents would be Kurt Student and Julius Ringel. The latter a bearded Austrian and fervent Nazi, whose 5th Gebirgsjäger (mountain) Division was a late addition to a plan wholly of the making of his ambitious fellow general, Student. Operation Mercury – as the invasion of Crete was coined – was Student's dream, the zenith of his belief in the ability of airborne forces to achieve victory through mass air and glider drops. Having only been formed in the late 1930s, Nazi Germany's fallschirmjägers (paratroopers) had achieved glory by carrying out

a series of daring attacks during 1940-41, including the capture of Europe's strongest fort – Belgium's Eben-Emael – by a handful of glider-borne troops. Now, a year later, he was determined to show the world what his paras could do.

Briefed to his commanders in a second-floor suite of Athens' Hotel Grande Bretagne, Student's Mercury was a colossus. Split into three groups, the nearly 11,000 men of 7th Flieger Division would land and seize Khania, the nearby airfield at Maleme, and then Rhethymnon and Heraklion further along the coast. They would be reinforced by Ringel's mountain troopers, who would both fly into captured air strips and be ferried in by sea. Student's intelligence head, Major Reinhardt, assured the assembled group that there were only around 5,000 defenders and the Cretans themselves would welcome the invaders – it would be a walkover. He would be wrong on all counts.

20 MAY: INVASION DAY

Well before dawn thousands of paratroopers heard the command: "To the aircraft, march!" Each man held the metal clip end of the long static cord in his mouth, leaving his hands free to pull himself up into the belly of the aircraft. Then, he fastened the clip onto the jump-wire running at head-height inside the plane. Each then took their seat, armed only with a pistol, all their other weapons and equipment packed into the four containers already loaded into the bomb bay. The containers would be dropped with them, but until they reached them the paras would be virtually defenceless.

The Luftwaffe had concentrated the bulk of its transport fleet of Ju 52s – Auntie Jus as they were nicknamed – and as the 500 aircraft headed south the sky brightened, promising a hot sunny day. Just after 0800hrs, as the Allied garrison stirred, Major Humphrey Dyer of the New Zealand Maori Battalion heard "a continuous, low roar. Above the horizon there appeared a long black line as if a flock of migrating birds... We looked, spellbound." On board the armada the bulkhead lights were red – two minutes to go – then they changed to green.

What followed was a slaughter. The slow transports made perfect targets, with the aircraft riddled by fire and dozens of paratroopers dying before even jumping. Those that did manage to jump were shot at as they floated down, unable to steer themselves due to the design of their parachutes. Many that did reach the ground were killed before they could arm themselves. The 750 Germans in gliders were supposedly better off than their aircraft-borne comrades as they were fully armed and so could fight from the moment they touched down, but their wood and fabric gliders drew horrendous fire.

Large as the air armada was, it still wasn't enough to take in all the paratroopers in one wave, so that afternoon a second assault went in, to the east. They met the same fate. By now alerted to what was coming, the Allied defenders mauled the slow-flying transports.

General Kurt Student thought the attack on Crete would be a walkover – he was wrong

Fallschirmjägers move into action after touching down in Crete. Dozens were blown out to sea on 20 May and drowned, while some landed in a bamboo thicket and were impaled

2x © Getty Images

IN THE BALANCE

Miraculously, some fallschirmjägers survived the carnage and began to fight back. In isolated groups they took cover wherever they could and fought it out with Freyberg's men and Cretan civilians, who, far from welcoming them, were determined to wipe them out.

Heartened by reports from across the island, Freyberg signalled Middle East Command that, although a hard day, his men had seen off the German threat. But a lack of effective communications and an inability to understand the type of battle that he was actually fighting blinded him to the reality that it was far from over, and in fact was being decided at the far west of his line at Maleme. Maleme's airstrip was the Germans' main objective that first day of the invasion. Take it and they would be able to fly in the reinforcements and matériel that would win them the battle. Student knew this implicitly and threw everything he had at it.

The key to Maleme was Hill 107, a feature rising up to the west that dominated the area. Held by a single battalion, the 22nd New Zealand, it came under sustained attack from the start. Eugen Meindl – the senior German officer in the landings – gathered up every paratrooper, gun and mortar he could find and desperately tried to take it. Under immense pressure, and in a welter of poor communication and misunderstanding, the New Zealanders' commanding officer – the VC-holder Leslie Andrew – withdrew off the hill that night, and with it the battle was lost. Counterattacks to retake it were later launched but not followed through – one supported by two Matilda tanks failed when one of the tanks broke down and the other's turret mechanism jammed at the same time as the crew realised they had the wrong calibre

of ammunition. Freyberg, still obsessing over a seaborne attack, failed to see that with Maleme the Germans already had a beachhead.

BATTLE AT SEA

The seaborne armada Freyberg so feared was a paper tiger. With the Kriegsmarine having no real presence in the eastern Mediterranean, Ringel had been forced to cobble together a makeshift force of some 63 vessels – mostly requisitioned Greek fishing caïques powered by a sail and a small auxiliary engine – escorted by a single Italian torpedo boat, the Lupo. Putting to sea, they crawled towards Crete at a sluggish seven knots, until on the night of 20/21 May they were found by Rear Admiral Irvine Glennie's three cruisers and four destroyers. The German fleet was effectively destroyed and hundreds of men were drowned.

However, while the Royal Navy ruled the waves during darkness, it was a different story when the sun came up. With no air cover the Luftwaffe hunted Glennie and the rest of Admiral Andrew Cunningham's force across the sparkling waters of the Mediterranean. HMS Greyhound was the first to be sunk, followed by two cruisers: the Gloucester and Fiji. Darkness brought respite, but not for long as five destroyers under the command of Lord Louis Mountbatten found themselves pounded by Stukas the following dawn. The Kelly and the Kashmir were sent to the bottom in quick succession, and with their loss Cunningham felt the Navy's defence of Crete was untenable.

21 MAY: INVASION DAY + 1

Hauptmann Kleye – an officer on Student's staff – was sent by his boss to find out what was going on and landed at Maleme at around 0700hrs on the morning of 21 May. Although he came under fire, he reported the airfield as useable and from then on a steady stream of aircraft began to arrive, ferrying in desperately needed ammunition and supplies, but more importantly reinforcements and heavy weapons. Most of those fresh troops were Ringel's gebirgsjägers and, supported by masses of Luftwaffe firepower, they began to roll up the British and Commonwealth positions from west to east.

Allied soldiers surrender after their position was overrun

© Alamy

BRITISH, ALLIED & COMMONWEALTH FORCES

Image source: wiki/Imperial War Museums

BERNARD FREYBERG

Commander of the New Zealand Expeditionary Force in the Battle of Crete, Freyberg had been the youngest general in the British Army when he served during the First World War. Freyberg bounced back from defeat in Crete with successful campaigns in the North African theatre, including at the Second Battle of El Alamein.

Image source: wiki/Imperial War Museums

ANDREW CUNNINGHAM

As Commander-in-Chief of the Mediterranean fleet Cunningham was in charge of several key naval battles during World War II and protecting supply lines in the region. He was made First Sea Lord in 1943, a role he held until his retirement in 1946. He was also Lord High Steward for the coronation of Elizabeth II.

GERMAN AND AXIS FORCES

Image source: Bundesarchiv, Bild 146-1979-128-36 / Unknown author / CC-BY-SA

KURT STUDENT

The German Luftwaffe general was a pioneer of the use of airborne forces and was in charge of developing the Nazis' elite paratrooper force, which played a key role in the Battle of Crete in 1941. After the war, Student was put on trial and convicted for committing war crimes for how his men mistreated and murdered Crete prisoners of war.

Image source: Bundesarchiv, Bild 183-L04327 / CC-BY-SA 3.0

WALTER KOCH

Koch was the commander of the German paratrooper branch, called the Fallschirmjäger, and led the first wave at the Battle of Crete. However, he publicly opposed Hitler's Commando Order (that insisted Allied commandos be killed without trial even if in uniform or surrendering) and died in Berlin shortly afterwards in an automobile collision.

Image source: Wikimedia Commons

FRANCESCO MIMBELLI

The Italian naval commander was in charge of the torpedo boat Lupo that successfully defended most of a convoy of German troops against seven British ships. He was later given command of Italy's Black Sea forces and after the war was promoted to rear admiral and commander of the Italian Naval Academy, finally retiring in 1964.

Herakleion

20 MAY – 1 JUNE 1941

Having come within an ace of losing the battle and the Third Reich's only parachute division, Student was left kicking his heels as the cautious and methodical Ringel took over the campaign. Freyberg's command was effectively split into three, with the troops in Rhethymnon and Heraklion caught in their own struggles as the courageous New Zealanders fought on in Khania.

The efforts of Mahlke and his comrades were decisive. Constant air attack caused terrible losses and robbed the remaining defenders of any ability to coordinate their efforts and counterattack, and even if they had it begged the question: with what? They had hardly any heavy weapons, with most of their artillery being captured Italian and French models, many without sights or more than a few rounds. Almost all their armour had already been destroyed or rendered unusable, they had no air cover, and even rifle ammunition was running out.

CRETE ABANDONED

The same morning that Mahlke made his ground attack the exhausted Freyberg cabled Cairo: "In my opinion the limit of endurance has been reached by the troops under my command... our position here is hopeless." Shocked at what they regarded as a sudden turnaround in fortune, permission was reluctantly given to evacuate the island. The surviving troops from Khania headed south on the single road to the small port town of Sphakia, mercilessly bombed and strafed by the Luftwaffe as they went. As thousands of dispirited British and Commonwealth troops streamed south, those at Rhethymnon and Heraklion fought on.

Even as the retreating men reached Sphakia, the Royal Navy was steeling itself to run the gauntlet and save as much of the garrison as it could. In a heroic effort worthy of the finest traditions of the senior service, starting on the night of 28 May, Cunningham's warships evacuated almost 11,000 men from the southern port, and another 4,000 from Heraklion on the northern coast.

By the morning of 1 June it was over. British and Commonwealth losses included just under 2,000 dead and the same number wounded, with another 5,000 left behind to trudge into captivity, one of whom was Campbell, whose mighty defence of Rhethymnon counted for nought as the Navy was unable to reach him and his gallant men, forcing them to surrender.

Terrible though these figures were, they were overshadowed by the German tally. Some 6,580 men were killed, wounded or missing, half of this number being paratroopers killed on the first day of the operation. The Germans also lost some 150 transport aircraft, which would be sorely missed in the upcoming invasion of the Soviet Union. But it was the heavy losses among the ranks of the elite fallschirmjäger that were the most damaging. One of the best-trained and best-equipped spearhead formations in the entire Wehrmacht had been gutted in less than a fortnight.

01 Gruppe West attacks Maleme

Split into three, Gruppe West is the largest of the fallschirmjäger assaults and is led by the most senior German officer involved in the landings, Generalmajor Eugen Meindl. Casualties are catastrophic, with one battalion of 600 men losing 400 killed during the landings.

02 Gruppe Mitte (Centre) attacks Rhethymnon

Landing in the first wave on the morning of 20 May, Gruppe Mitte is leaderless from the start of the battle when its commander – Wilhelm Süssmann – is killed along with his staff when their glider crashes onto the island of Aegina on the way to Crete.

03 Gruppe Ost (East) attacks Heraklion

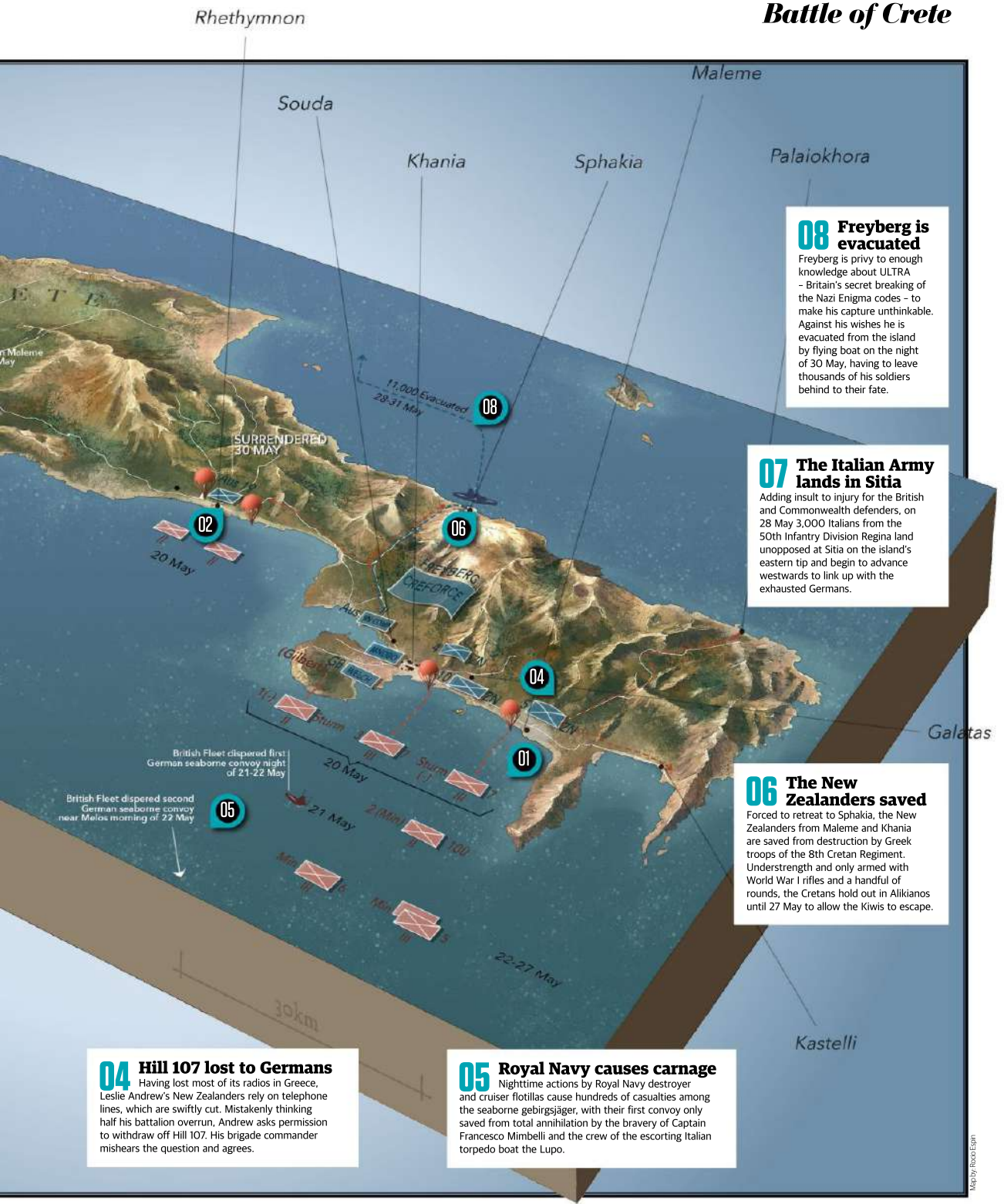
Scattered on landing, Gruppe Ost's commander – Oberst (Colonel) Bruno Bräuer – gathers as many men as he can and tries to capture the city, only to be beaten back by the Highlanders of 2nd Battalion Black Watch.

STRENGTHS, 20 MAY

British Commonwealth Troops		German Parachutre & Mountain Troops	
NZ Division	7702	Parachute	10100
Australian	6540	Glider	750
Royal Marines	1941	Seaborne	7000*
British Army	15063*	By Air Transport	5000
	10258		22750
Greek Troops	10258		

*MNBDO: Mobile Naval Base Defense Organization

*Failed to arrive



08 Freyberg is evacuated

Freyberg is privy to enough knowledge about ULTRA – Britain's secret breaking of the Nazi Enigma codes – to make his capture unthinkable. Against his wishes he is evacuated from the island by flying boat on the night of 30 May, having to leave thousands of his soldiers behind to their fate.

07 The Italian Army lands in Sitia

Adding insult to injury for the British and Commonwealth defenders, on 28 May 3,000 Italians from the 50th Infantry Division Regina land unopposed at Sitia on the island's eastern tip and begin to advance westwards to link up with the exhausted Germans.

06 The New Zealanders saved

Forced to retreat to Sphakia, the New Zealanders from Maleme and Khania are saved from destruction by Greek troops of the 8th Cretan Regiment. Understrength and only armed with World War I rifles and a handful of rounds, the Cretans hold out in Alikianos until 27 May to allow the Kiwis to escape.

04 Hill 107 lost to Germans

Having lost most of its radios in Greece, Leslie Andrew's New Zealanders rely on telephone lines, which are swiftly cut. Mistakenly thinking half his battalion overrun, Andrew asks permission to withdraw off Hill 107. His brigade commander mishears the question and agrees.

05 Royal Navy causes carnage

Nighttime actions by Royal Navy destroyer and cruiser flotillas cause hundreds of casualties among the seaborne gebirgsjäger, with their first convoy only saved from total annihilation by the bravery of Captain Francesco Mimbelli and the crew of the escorting Italian torpedo boat the Lupo.

Map by Rod Espin

What If...

WHAT IF POMPEY HAD DEFEATED JULIUS CAESAR?

How the outcome of one battle would have changed the history of the Roman Empire as we know it

Interview by David J Williamson

INTERVIEW WITH

© Dr Simon Elliott

DR SIMON ELLIOTT

Dr Elliott is a bestselling author, historian, archaeologist, broadcaster, and Honorary Research Fellow at the University of Kent. His books include *Roman Legionaries*, *Julius Caesar: Rome's Greatest Warlord* and *Roman Conquests: Britain*

Former political allies, and even allied through marriage, Julius Caesar and Pompey faced each other across a battlefield at Pharsalus in Greece, in 48 BCE, as deadly enemies. Political convenience had turned to dust and the outcome of this battle would determine the fate of both men, and the future of Rome and its influence in the world.

Was it inevitable that Pompey and Caesar would come to blows? How different were they, and was Pompey as ambitious as Caesar?

Yes, absolutely they would have come to blows. Both were the leading protagonists in their generation for the two main political factions in Roman politics. These were the optimates who were reactionary and pro-Senate, and the populares who were in favour of reform and supported by the lower orders of the Roman aristocracy and society. They were both the latest incumbents to champion their respective causes, following on from Lucius Cornelius Sulla and Gaius Marius in the preceding generation.

While both men were ambitious, it was Caesar who definitely had the edge. All political leaders of the Roman Republic were in effect independent warlords, and shared to a greater or lesser degree a number of leadership traits. These included personal bravery; the ability to be brutal when necessary; strategic and tactical prowess; the ability to communicate with audiences high and low; that most Roman of traits, grit, which meant they kept coming back; the charisma to inspire on a large scale; and decisiveness. Caesar was the only one who had them all, and because of this he was the warlord who was the most constantly, and conspicuously, successful. That is why I believe he was Rome's greatest warlord.

Had Caesar been captured what would Pompey's options have been? And his most likely course of action?

That is a very good question. I believe Pompey would have liked to be merciful to his rival. The destruction of a political opponent was a grave matter in the world of Republican Rome. Note, for example, Caesar's fury when he learnt that Pompey had been beheaded on arrival in Ptolemaic Egypt after fleeing the defeat at Pharsalus. However, on the eve of that battle Pompey knew he had been bested by the arriviste Caesar, the latter in particular making his name in his dramatic and sanguineous conquests of Gaul. Caesar's aggressive strategy against the optimates certainly put his rivals on the back foot. Further, while Caesar

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Main image sources: © Alamy

RIGHT
Julius Caesar would become a dictator whose dynasty started an empire

RIGHT-INSET
Pompey The Great was a stalwart of the Republic

THE PAST

60s & 50s BCE

DRIVEN BY AMBITION

Both Caesar and Pompey were successful, seasoned campaigners in battle, and that would both bring them together and drive them apart. Success in war had gained them wealth and the respect of the people, which in turn gave them the platform for the political ambition and eventually rivalry that was to drive them towards their individual fate.

60-53 BCE

THE TRIUMVIRATE

To further their own ends within the Senate, Caesar and Pompey formed a private alliance with the fabulously wealthy Marcus Crassus, known to us as the First Triumvirate (60-53 BCE). Through such political manoeuvring, Caesar became Consul and as a result all three increased their power and influence. But the alliance was a troubled one and following the death of Crassus in a military campaign, plus the death of Julia (Caesar's daughter and Pompey's wife) relations between the two remaining allies were stretched to the limit and the triumvirate came to an end.

Image source: wiki/Mary Hanson (CC BY-SA 4.0)

49 BCE

CAESAR CROSSES THE RUBICON

Roman law forbade any military leader from crossing into Italy with a standing army. Following further successful military campaigns, in 49 BCE Caesar took the ultimate step of crossing the Rubicon River, which formed the northern boundary of Italian territory, without disbanding his legions, in defiance of the Senate. It was an open act of treason from Caesar, resulting in civil war and leading Caesar and Pompey to the inevitable clash at the Battle of Pharsalus.

Image source: wiki/Jacob Abbott

was far and away the leading populares champion, Pompey was more of a first among equals. This proved to be the case after his death when the optimates cause continued in further civil war until 45 BCE. Therefore, I think Pompey's hands would have been tied. Much as he would have liked to have kept Caesar alive, perhaps as an exile, he knew that his fellow optimates expected his opponent to be killed – an event that would have secured victory for the optimates.

What role would Pompey have seen for himself in Rome and how would he have secured it?

If Pompey had defeated Caesar I don't believe he would have had the option of setting himself up as a dictator for life as Caesar had done, given he was the leading optimates rather than their actual – individual – leader. He would have championed a return to the normal Republican Roman status quo, with annual elections for twin consuls, though of course occasionally he himself would have put himself forward as one!

What would a Pompey victory have meant for the likes of Mark Antony, Cleopatra and Octavian? And what effect would this have on history?

They would have become footnotes in history. Mark Antony, while successful in the final stages of the 1st century BCE civil wars in Rome, was no Caesar. Though a skilful political operator, he would likely have perished soon after Caesar's defeat. Meanwhile the optimates broadly favoured Cleopatra VII's rival for

Scala/Ann

ABOVE
Pompey's alliance with Ptolemy XIII could have grown even stronger

political power in Alexandria, her brother Ptolemy XIII. While unquestionably a powerful ruler in her own right, without Caesar and later Antony championing her cause Cleopatra would most likely have been just another ruler in the long line of squabbling Ptolemaic monarchs. Similarly, Octavian owed his later elevation to Caesar championing him as the latter reached the ascendancy of his domination of Roman political life. Without that elevation, and given his family association with Caesar and the populares, he again would most likely have either been killed or disappeared into obscurity.

Would the influence of the Roman world in size and culture have been different after a Pompey victory? If so, how?

Not necessarily. By the time of Pharsalus, Rome was easily the dominant power in the western and eastern Mediterranean

Image source: wiki/Art Institute of Chicago (CC0 1.0)

BELOW
The Battle of Pharsalus saw Julius Caesar defeat Pompey the Great

worlds, with no symmetrical opponent left except perhaps the Parthians in the east. To that end, Rome was already far down the road of assimilating Greek, Egyptian and Punic culture into its own way of life. Furthermore, even if Caesar had been defeated, his optimates opponents would still have had the same desire to expand Roman influence even further afield.

Would Rome have still become an Empire if Pompey had won?
Possibly, but later. While the Republic would most likely have continued in the short term, as I have explained, Rome was now the conqueror of all it surveyed. Therefore, any significant conflict would most likely have come in a new round of civil wars, though perhaps somewhat later than actually happened. In that context, there is no reason to think another populares strongman might have emerged to later take on Caesar's mantle of reform for the Republic. A victory then for this warlord would then perhaps, as happened in reality, have set in place the path to Empire.

What three specific historical events would have been very different because of a Pompey victory over Caesar? And how may subsequent history have changed because of them?
The Roman Empire would not have come into being at the time and in the way it did, even if later it might have appeared in some form. That would then have had a direct impact on the development of the various political entities geographically surrounding the world of Rome, whether the Germans north of the Danube, Parthians in the east, Numidians in North Africa, or Spaniards in the remaining unconquered regions of the Iberian Peninsula. Next, it was Caesar who put Britain on the Roman map with his two incursions in 55 BCE and 54 BCE. Without his interest there perhaps Roman engagement may have withered, instead of Augustus planning though cancelling three invasions, Caligula likewise cancelling one, and ultimately Claudius invading in force in 43 CE to set up the province of Britannia. Finally, Caesar has been the inspiration for political and military leaders ever since his dramatic Icarus-like ascent and ultimate demise. In modern times we still style autocratic leaders in his image, for example think Slavic Tsars and German Kaisers. Perhaps a failure on his part at Pharsalus might have encouraged those who sought (and seek) power at the end of the sword to think again. But probably not!

BELOW
Caesar's ally Mark Antony may not have survived a Pompey victory

THE POSSIBILITY

55-54 BCE

ROMAN BRITAIN WIPED FROM HISTORY?

Caesar's minor explorations of Britain and his interest in expanding into the country may well have died with him at Pharsalus. With the possibility of Pompey taking Roman expansion in a completely different direction, the unknown territory may well have stayed untouched by Rome. No Hadrian's Wall, no Roman roads, no villas and no Roman culture that was to have a lasting effect on the development of the British people.

69-30 BCE

CLEOPATRA WHO?

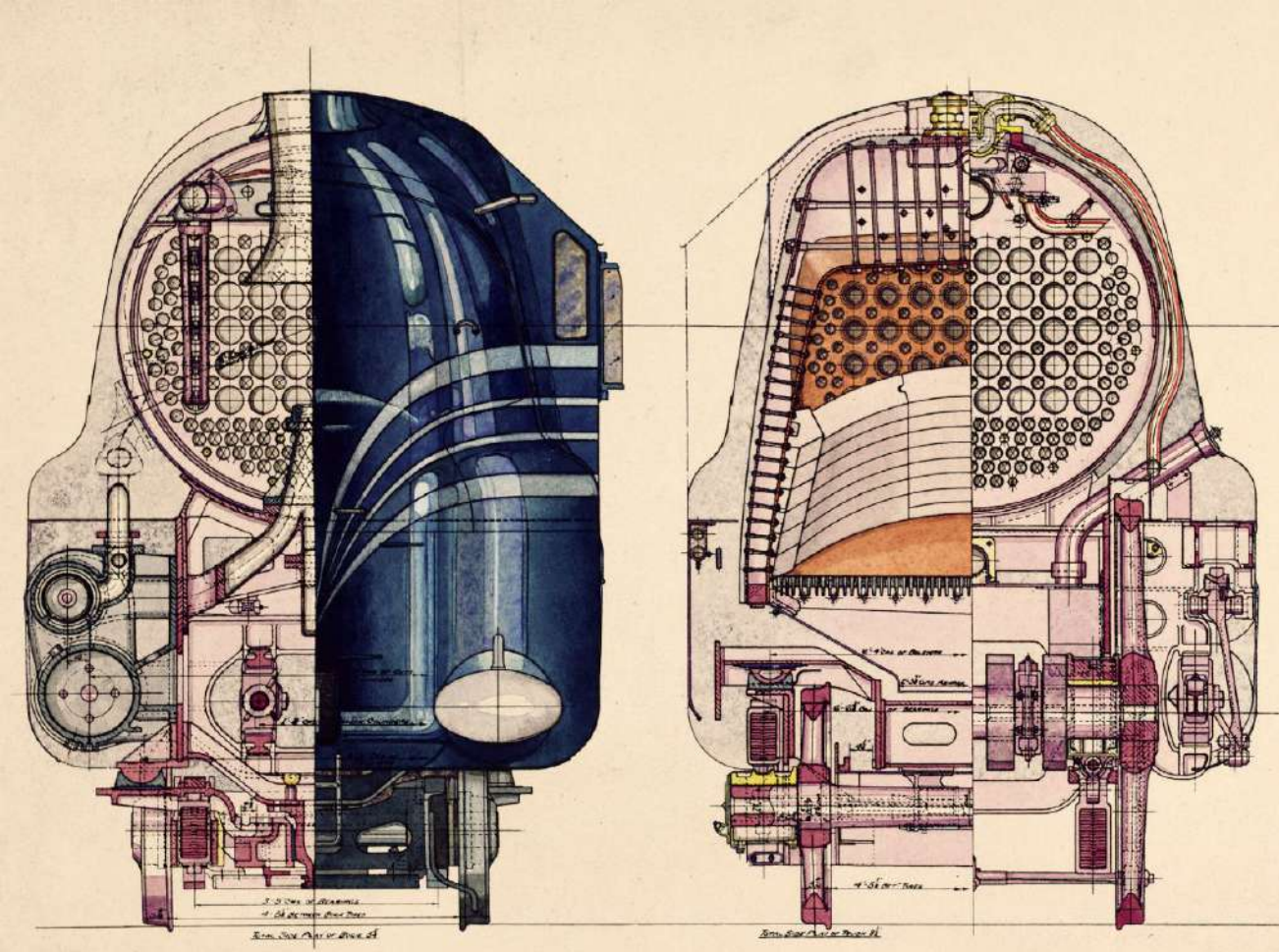
As the victor, rather than being killed in Egypt at the orders of Ptolemy, Pompey may have strengthened their alliance. It would mean a very different future for Ptolemy's sister and joint ruler, Cleopatra. As Ptolemy's enemy she would be Pompey's enemy, ending in obscurity or death. Her mythical beauty would never have been celebrated, and her famous love affair (and child) with Caesar and later Mark Antony, ending in her suicide, would never have happened.

44 BCE

A VERY DIFFERENT DYNASTY

Julius Caesar was the first of a new order in Rome with ultimate power in the hands of one man. Despite his assassination and the consequent civil war his line endured through his adopted son Octavian (Caesar Augustus). But Pompey was much more of a republican, and a dynastic dictatorship through a line of emperors may possibly never have happened. There would be no Augustus, Tiberius, Caligula or Claudius. Whether there had been an emperor or a republic, events would've shaped the empire very differently.

Image source: wiki/ S.I. Sosnovsky (CC BY-SA 4.0) [translated]



Through History

TRAIN TREASURES

All aboard for a tour of some beautiful drawings and historic photographs from the National Railway Museum

Main image: © LMS Coronation class green Arrangement Cross sections

The first railway opened in Britain in 1825, revolutionising daily life by making transportation of goods, animals and people relatively quick and simple. By 1870 almost 22,000km of railway criss-crossed the country. Today, the railway is a part of daily life, with 1.8 billion journeys made in the UK every year. Of course, with such a rich history, over the years several institutions have been formed to celebrate and protect the heritage of the railways. In 1975, on the 150th anniversary of the UK's first railroad, one of the most famous and respected, the National Railway Museum (NRM) in York, opened its doors to the public.

Containing the world's largest collection of railway-related objects and paraphernalia, from a 1976 Japanese bullet train to the stuffed Railway Collecting Dog 'Laddie', the museum remains the top resource for the history of locomotive transport. One key part of the museum's vast collection is its assortment of a million or so engineering drawings, now the subject of a new book, *Railways: A History in Drawings*. Here, we highlight some of them, as well a selection of photographs from the NRM's collection.

TOURIST SEASON

▶ This photograph, taken in the summer of 1946, shows the huge crowds of people heading for their first holiday in six years. Some destinations, such as the Suffolk beaches, needed 5,000 mines cleared before they were safe for holidaymakers.

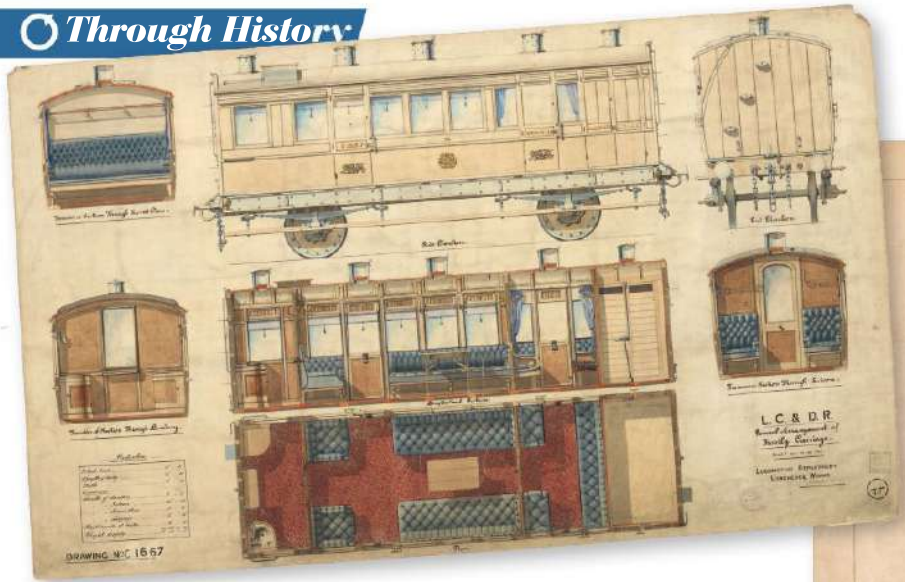
THE ANIMALS WENT IN TWO BY TWO

▼ Although railways had often been used to transport animals, this was usually sheep, cows and other livestock heading to market. These elephants were being transported for the filming of Richard Burton and Elizabeth Taylor's 1963 epic *Cleopatra*.

PADDINGTON STATION WAR MEMORIAL

▲ Around 30,000 railway workers lost their lives during World War I, 25,000 of whom worked for Great Western Railway. This photograph shows the memorial's initial unveiling in 1922. It would later be rededicated following World War II.

All images: © National Railway Museum / Science & Society Picture Library

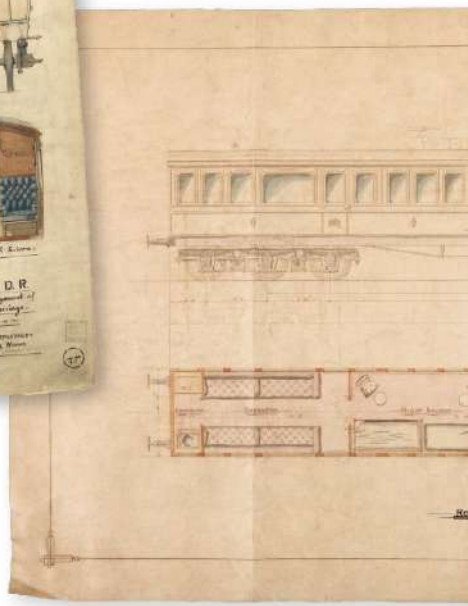


FAMILY CARRIAGE

▲ This drawing shows a 'family saloon', available for the ultra wealthy when going on holiday. These carriages usually included large spaces for luggage, as well as a second carriage for the servants who would accompany the family. This detailed drawing highlights a level of spacious luxury that was well out of reach for the ordinary traveller.

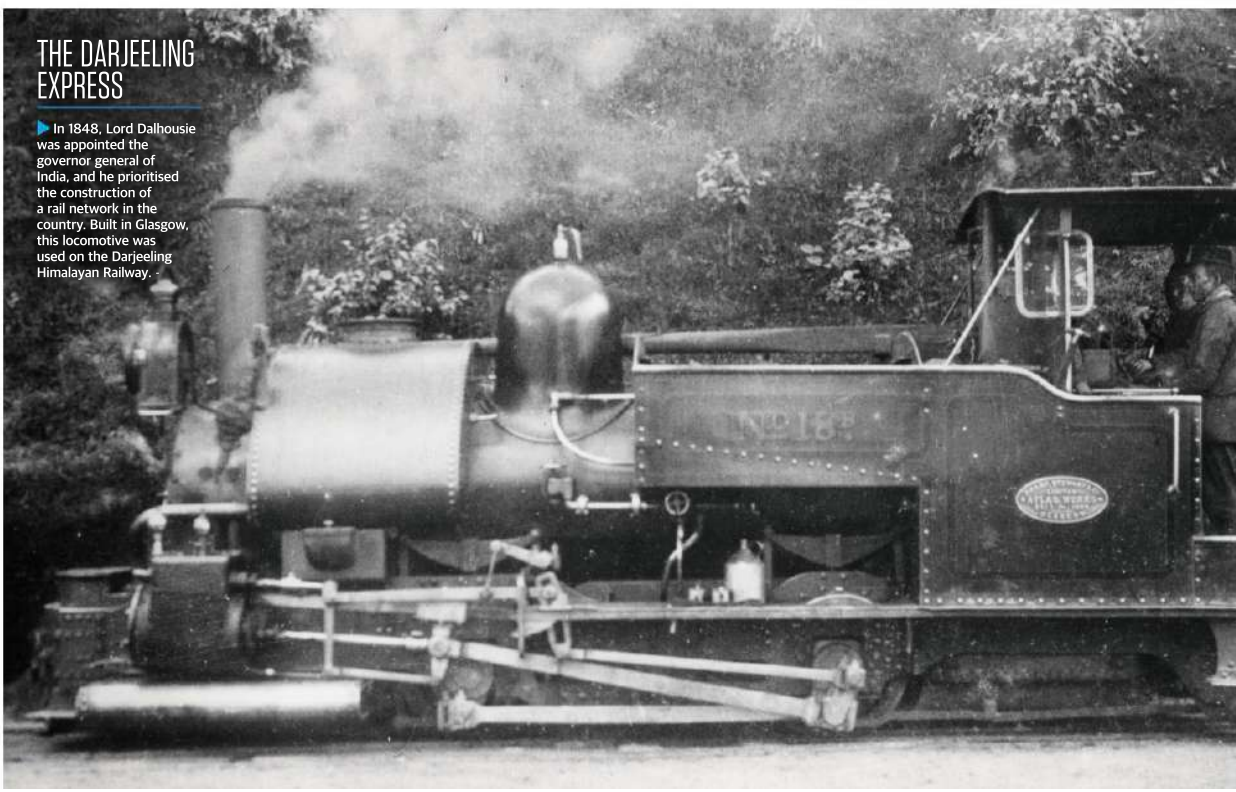
FIT FOR A QUEEN

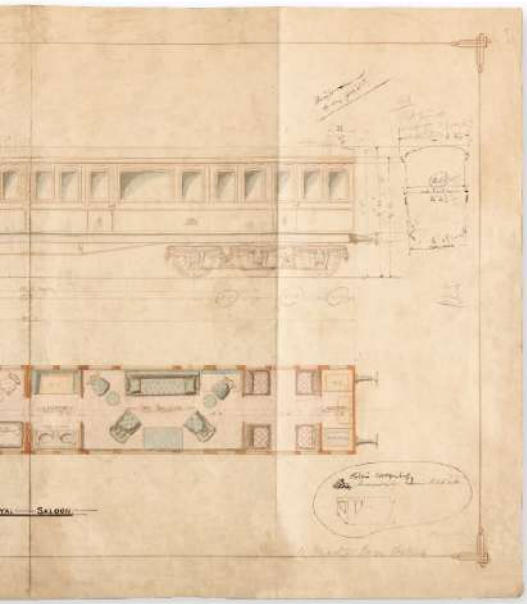
▶ One passenger who knew how to travel in style was Queen Victoria. This drawing details her saloon, the interior of which was decorated with material chosen by the queen herself. Victoria refused to have gas lamps fitted and so oil lamps and ornate candle holders were kept instead.



THE DARJEELING EXPRESS

▶ In 1848, Lord Dalhousie was appointed the governor general of India, and he prioritised the construction of a rail network in the country. Built in Glasgow, this locomotive was used on the Darjeeling Himalayan Railway. -



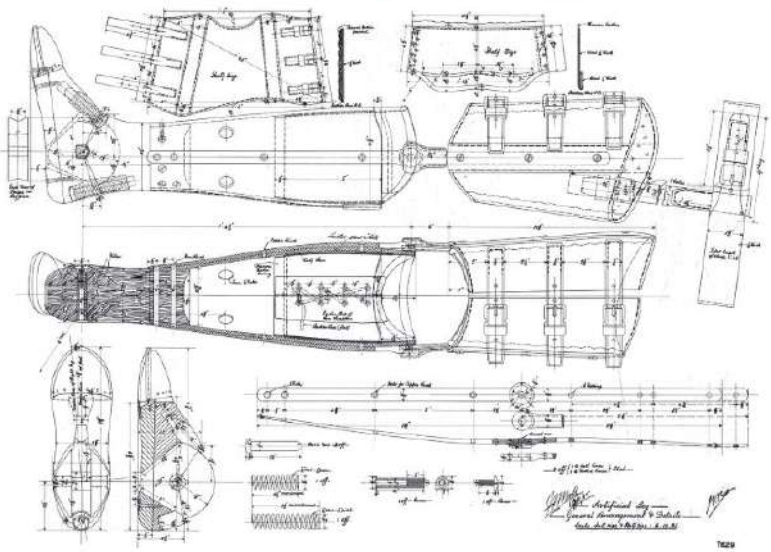


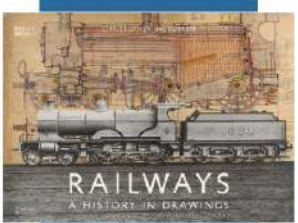
PROSTHETIC LEG

Working on the railways was extremely hazardous and staff sometimes lost entire limbs in accidents. This 1886 drawing shows a prosthetic leg. These were manufactured by London and North Western Railway at its locomotive works and were very sophisticated for the era.

A POSH PICNIC

During the late 1800s it was possible for the very wealthy to book entire carriages for themselves. Known as Picnic Saloons, they offered rich tourist groups scenic day trips in the lap of luxury. This photograph shows the party of James Caird, who were touring Scotland.





© Thames & Hudson

Railways: A History in Drawings by Christopher Valkoinen is out now from Thames and Hudson

REVIEWS

The books, TV shows and films causing a stir in the history world this month

THE CHAMPION OF AUSCHWITZ

A well-intentioned but ultimately flat portrait of a remarkable survivor

Certificate: 15 **Director:** Maciej Barczewski **Cast:** Piotr Glowacki, Rafal Zawierucha, Marcin Czarnik **Released:** Out now

Tadeusz 'Teddy' Pietrzykowski, a bantamweight-class fighter, had a promising future ahead of him as a pugilist. In 1937, he was successful enough to be crowned Warsaw Champion. Two calamities then unfolded: a career-wrecking injury and the invasion of Poland by the Wehrmacht, sparking World War II. As a patriot, Pietrzykowski signed up and fought in the Siege of Warsaw. Making his way to France after the German army claimed victory, he was captured in Hungary and turned over to the Nazis. In the hands of the Gestapo, the former boxer was tortured, interrogated and sent to Auschwitz-Birkenau as part of the first mass transport. There, he became known as Prisoner #77.

Over the course of two years, before his eventual transfer to another camp in early 1943, Pietrzykowski was forced to box with SS guards and fellow internees. For winning (taking on up to 60 opponents), Teddy was rewarded with extra food rations and his choice of work assignments. His story is indeed fascinating and unique enough to warrant the movie treatment. His wartime experience was already subject to a 1962 Slovakian production, *The Boxer and Death*, but that is almost 60 years old and the angle of this particular version is that it's been made in Poland, his homeland.

Directed by Maciej Barczewski, *The Champion of Auschwitz* is a heavily abridged and rather lacklustre biopic devoid of dramatic punch. It all feels a bit rote (less *Raging Bull*, more raging dull). By-the-numbers stuff and too keen on recreating camp atrocities for empty shock value, it's also lumbered with didactic scoring arrangements screaming at you to feel things instead of letting the images and storytelling guide the viewer. This is a sign of panic in the editing room or plain old unimaginative thinking. Either way, it's poorly crafted and works against the film.

What a shame, because this should be a powerfully delivered real-life tale of mental and physical endurance, of struggle in a place of constant fear and endless death, of the indomitable human spirit and its ability to remain untouched in the most dreadful circumstances. And Piotr Glowacki is good as Teddy when he is allowed to recreate the graceful prowess that earned the fighter the nickname 'White Fog'. Pietrzykowski's method involved dancing around the ring, tiring out his opponents, dodging and weaving then launching carefully aimed blows.

The Champion of Auschwitz is not entirely absent of positives beyond Glowacki's performance. The production design by Ewa Skoczkowska ensures a level of grim verisimilitude regarding the look of the camp, while cinematographer Witold Płóciennik's symbolic use of light is simple but effective at conveying Pietrzykowski's inner resolve and tremendous courage. If only filmmaker Barczewski had a greater handle on things overall. At 91 minutes in length, including opening and closing credits, the pace is simply too brisk and the storytelling suffers for it. As it sleepwalks through Holocaust and boxing movie clichés, a feeling of superficiality dominates. ***MC***

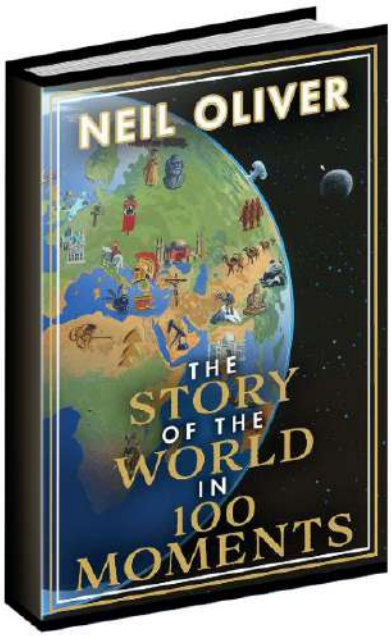
★★☆☆☆

Reviews by
Martyn Conterio, Tom Garner, Jonathan Gordon, Beth Wyatt

THE STORY OF THE WORLD IN 100 MOMENTS

A bold, fact-filled but reflective book by Neil Oliver that takes a look at global history through a personal lens

Author: Neil Oliver **Publisher** Transworld, Penguin Random House
Price £25 (Hardback) **Released** 16 September

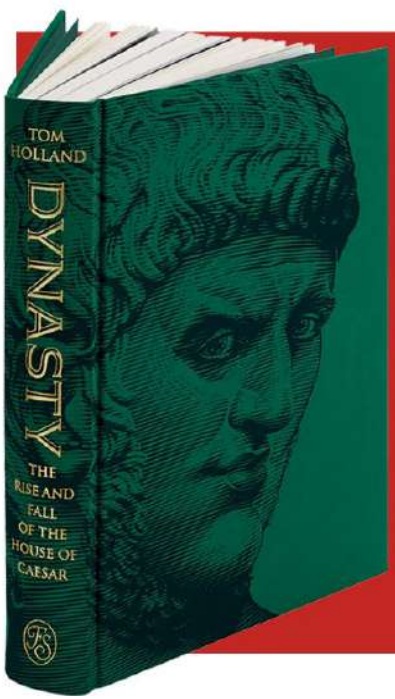


To try to distil the whole of humanity's story into 100 segments is an ambitious, highly subjective endeavour. It is this conundrum that broadcaster and author Neil Oliver readily admits in his introduction to *The Story of the World in 100 Moments*: "Let us confront the obvious trouble and hope to head it off at the pass: these are my 100 moments. Any and every reader will likely question some choices, and that is how it should be."

As is often the case with British historians, many of Oliver's choices of significant moments in world history are somewhat Anglocentric. However, his book does a very good job of projecting a global scope. For example, the earliest known recorded poet, Enheduanna, is revealed to be a Sumerian woman from the 23rd century BCE. Oliver neatly contexualises her as having, "lived 40 centuries before Shakespeare," and his book is peppered with lyrical phrases like this.

There are also fun stories such as why the Ancient Greeks regarded olive oil as 'liquid gold' and how New Zealand was first discovered by a legendary Polynesian called Kupe. Sometimes moments aren't huge events but seemingly innocuous human practices with momentous implications such as the development of law, money, religion and photography. As an introduction to the many varied aspects of history, *The Story of the World* is to be recommended. ***TG***

★★★★☆



DYNASTY

This story of the first Caesars revels in its topic

Author Tom Holland **Publisher** Folio Society Publishers
Price £49.95 **Released** Out Now

One of the first things that comes to mind reading Tom Holland's *Dynasty* is that he must have had a whale of a time writing it. There's a real sense of exuberance and enthusiasm wafting from every page as he takes us through the lives and misadventures of the first five men who ruled the Roman Empire (with no short change for the many women who did so alongside them).

With a brief introduction to the founding of Rome up to the assassination of Julius Caesar, Holland develops a sense of the near-inevitability of the rise of Imperial rule in Rome, how it fits with the city's own founding myths and its sense of self. He focuses almost exclusively on the high-powered movers and shakers of Rome, the politics, the backstabbing (some literal, of course) and the lavish lifestyles of those at the top of Roman society.

Holland's approach to telling these stories means that he often adopts the perspective of the figure through whose eyes he is evaluating the scene. That can mean some rather callous or outdated concepts at times, but hopefully it will draw you into the tale rather than pushing you away.

Dynasty errs on the side of drama over trying to offer detailed critical study. There's plenty of research that forms the foundation of Holland's exploration of these years, but analysis of events is often less important than telling an engaging story. What mileage you will get out of that, you can best judge, but we rather enjoyed the journey. ***JG***

★★★★★

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HISTORY OF WAR **RECOMMENDS...**

Attagirls

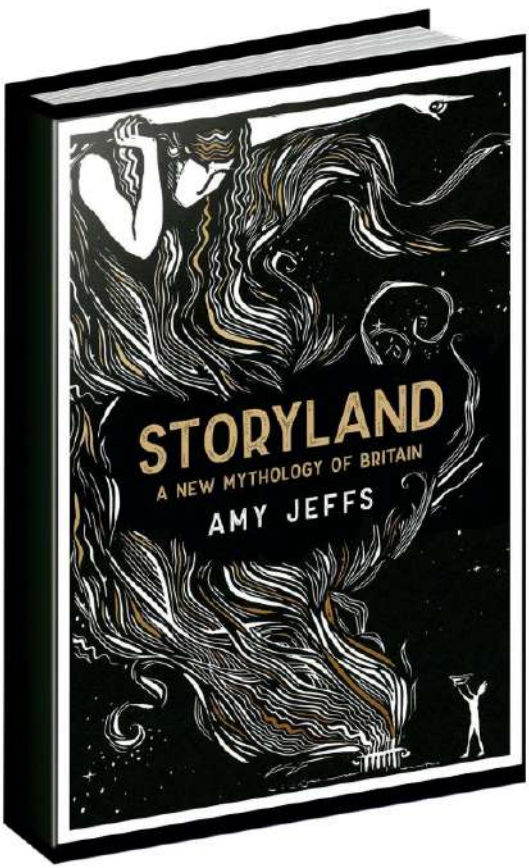
Author Paul Olavesen-Stabb **Price** £20
Publisher Aetheris Publishing

Paul Olavesen-Stabb's writing transports us back to 1940s Britain and brings the women's war story to prominence with the camaraderie as shown in Band of Brothers and the emotion displayed in Testament of Youth. In essence, this is a book about being (to quote the ATA girls) "eager for the air". It's about relationships and life-changing experiences.

STORYLAND:
A NEW MYTHOLOGY OF BRITAIN

A stunning retelling of Britain's most wondrous myths

Author Amy Jeffs **Publisher** riverrun **Price** £25 **Released** Out now



"*Storyland* is a joyous read celebrating the power of collective myths and the landscapes which inspired them"

The rivers, forests and mountains of Britain speak beyond the known historical past. They are also places of myth, places which carry the desires, fears and identities of those who once walked among them. A mark on a monument or a name passed down can bring forth visions of dragons, giants, wizards and legendary monarchs. Such is the magic of Amy Jeffs' book *Storyland: A New Mythology of Britain*, which reimagines these tales so evocatively.

Jeffs – an expert in medieval art and literature – presents 30 stories arranged into four sections: In the Beginning, Prehistory, Antiquity and the Middle Ages, with the timeline ending with the Norman Conquest of 1066. In arresting prose, Jeffs tells us how Merlin's magic moved the colossal stones of the Giants' Dance from Ireland to Salisbury Plain, and how Arthur came to remove the Sword in the Stone. We also meet Brutus, subject of Britain's origin myth, and Gwendolen, daughter of Brutus' ally Corineus, who becomes queen after removing her husband King Locrin, who spurned her for another.

Jeffs' retellings incorporate elements of her own imagination and differing protagonists. The narrative of Sif – wife of Thor, King of Thrace – and her child Loridi is of the author's invention (based on elements of Icelandic texts), with the tale focused on Sif's prophecy of her future descendant Woden (Odin). Meanwhile Cordelia, King Lear's daughter, is the protagonist of her own story, succeeding her father and reigning for five years before she is overthrown. Cordelia and Lear's story first appeared in Geoffrey of Monmouth's *History of the Kings of Britain* (c.1136), and Jeffs notes the text was written at a time when Matilda, Henry I's heir, was battling for the English crown.

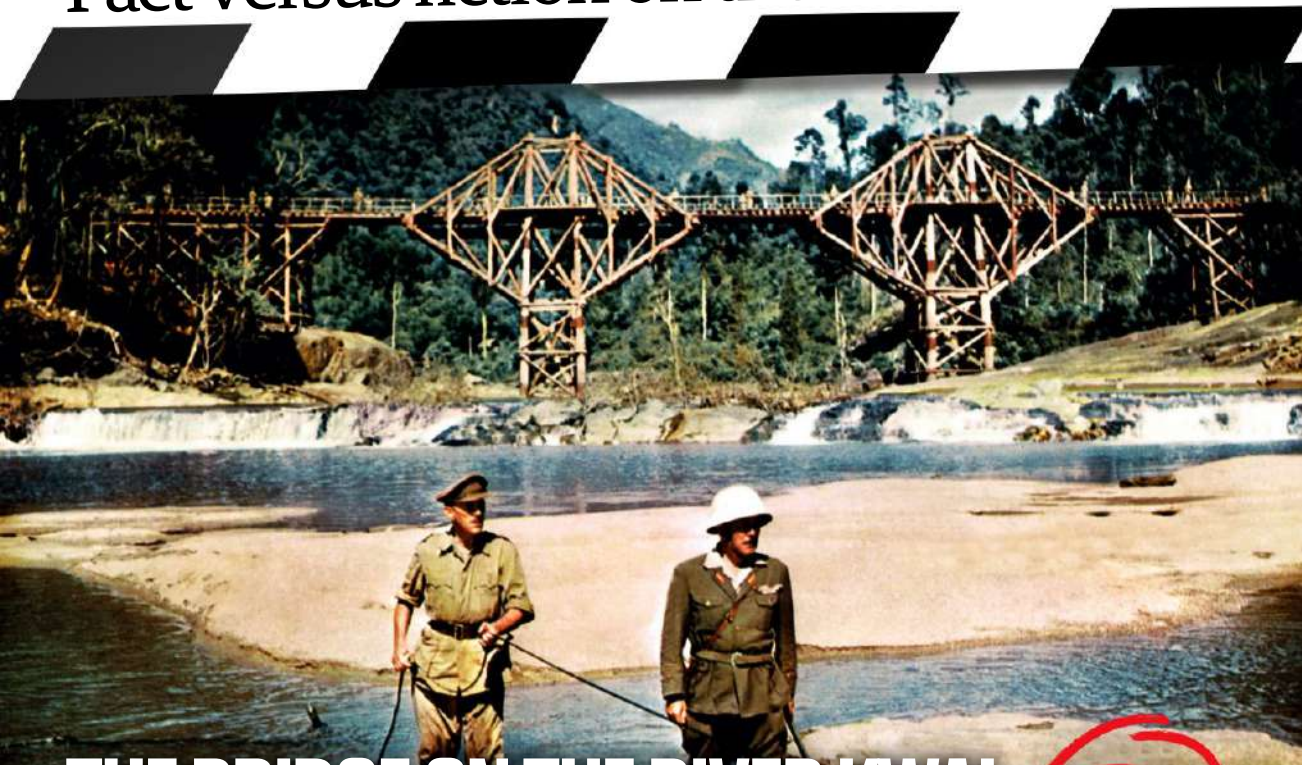
Storyland abounds with myths that highlight medieval political contexts. Edward III invoked the image of Arthur – conqueror of 30 realms including France – in his claim on the French throne; while his grandfather, Edward I, linked himself to Locrin, Brutus' eldest son, who ruled Loegria (England) and was seen as the overlord of Kambria (Wales) and Albany (Scotland), territories gifted to his brothers. But the Scottish also had their own origin myth – the story of Scota and Gaythelos – which, as Jeffs notes, was arguably more prestigious. Gaythelos was Greek (whereas Brutus was of Trojan descent), and Scota was the daughter of a Pharaoh.

Each myth is accompanied by linocut prints by the author. (The book's cover features a striking depiction of the goddess Diana delivering the prophecy which leads Brutus to Britain.) The wonder of Britain's historic landscapes is also evoked in the contextual sections, which at times discuss Jeffs' experiences of visiting sites connected to these stories. As she describes Wayland's Smithy occupying, "a wooded glade, like a brooding, grey-skinned troll," Dinas Emrys passing as, "a tropical other-world," at summer's end, and Castell Dinas Bran being transformed into a hill gilded with, "powdered light," you can almost see the dragons wheeling overhead and the giant Gogmagog in his slumber. ***BW***

★★★★★

HISTORY VS HOLLYWOOD

Fact versus fiction on the silver screen



THE BRIDGE ON THE RIVER KWAI

Director: David Lean **Starring:** Alec Guinness, Jack Hawkins, William Holden, Sessue Hayakawa **Country:** USA/UK **Released:** 1957

This 1957 classic won seven Oscars, including Best Picture, but does it forgo facts for fiction?

VERDICT: Described by Colonel Philip Toosey as "good theatre but totally removed from reality", this superb film is almost entirely fictional

01 The film follows British POWs constructing the titular bridge over the River Kwai. The conditions faced by the real POWs were far worse than those depicted in the film, with roughly 13,000 dying during construction of the Burma-Siam Railway.

02 Alec Guinness won an Oscar for his role as Colonel Nicholson, based on the real-life Colonel Philip Toosey. Toosey attempted to delay the construction of the bridge and committed acts of sabotage, including using wood-destroying termites.

03 Sessue Hayakawa plays Colonel Saito. The real Saito was a sergeant major and not in charge of the camp. Toosey later commented that although Saito had been strict he was fair towards the prisoners and defended him after the war.

04 Jack Hawkins plays Major Warden, a commando in Force 316. Although some of its commanders were British the majority of the agents were indigenous or from groups such as Chinese Canadian. Those shown in the film are Caucasian.

05 During the film's climax the bridge is blown up by a squad of crack commandos, an event which never occurred in real life. While the two real bridges were destroyed by Allied bombing, the steel bridge was rebuilt and continued to be used.

Main image: © Alamy
Sx inset image source: Columbia Pictures

Main image: © Alamy
Inset image: © Alamy

Did you know?

Bouchée à la reine translates to 'the queen's bite' in English

Ingredients

For the vol-au-vents:
- 1kg/2 rolls puff pastry
- 1 egg, beaten

For the filling:
- 1kg chicken
- 500g button mushrooms, diced
- 100g leek, chopped
- 100g onion, chopped
- 100g carrots, chopped
- 20g butter
- 1 bouquet garni of parsley, thyme, bay leaf
- Lemon juice

For the sauce:
- 100g heavy cream
- 50g butter
- 50ml white wine
- 4 tbsps flour
- 1 egg yolk
- Salt
- Pepper

BOUCHÉE À LA REINE

A CLASSIC OF FRENCH CUISINE, FRANCE , 18TH CENTURY – PRESENT

The bouchée à la reine, a vol-au-vent filled with salpicon and a thick sauce that is traditionally served as a starter, was invented and named for Queen Marie Leszczyńska, the Polish wife of King Louis XV of France. While the queen was not politically influential during the four decades of her reign as consort, she enjoyed good food and influenced French cuisine. It is said that bouchée à la reine was created as an aphrodisiac at the queen's request, in an unsuccessful attempt to win back her husband's affection after discovering his affair with Madame de Pompadour. A popular dish before the French Revolution, bouchée à la reine is still eaten today with a variety of fillings.

METHOD

01 Preheat the oven to 200°C/180°C Fan/Gas mark 6. Roll out the puff pastry sheets and, using a 10cm round fluted pastry or cookie cutter, cut out 12 discs of pastry. Using a 5cm cutter, cut a hole in the centre of six of the pastry discs to create six pastry rings.

02 Line a baking sheet. Place the six pastry discs on the baking sheet and top each one with a pastry ring. Add a tablespoon of water to the beaten egg to create an egg wash and use it to glaze the pastry with a pastry brush.

03 Bake the vol-au-vents in the oven for 25-30 minutes, until golden brown. Leave to cool for a few minutes, then cut out the middle of each vol-au-vent with a knife to create room for the filling. Save the cut-out pastry lids.

04 In a large saucepan, add the chopped onion, leek, carrot, bouquet garni and the whole chicken. Add enough water to cover the chicken, season with salt and bring to a boil. Cover and simmer on low to medium heat for 1.5 hours. Once cooked, remove the chicken and leave it to cool. Strain the chicken broth using a sieve.

05 While the chicken cooks, prepare the mushrooms. Add the mushrooms, butter and lemon juice to another saucepan. Add water to cover and bring to a boil, cooking them for three to four minutes. Remove the mushrooms from the heat and leave to the side.

06 For the sauce, melt the butter in a saucepan and then add the flour. Mix well and cook on low heat for two minutes, stirring constantly, to form a roux. Turn off the heat and leave to cool. In another saucepan, add one litre of chicken stock and bring it to a boil to reduce it.

07 Return to the whole chicken, remove and dice the chicken breasts. Back to the cold roux, add 500ml of the boiling chicken broth and whisk until smooth. Put the roux back onto medium heat and cook on low for 10 minutes, the sauce should be semi-thick.

08 Stir the mushrooms and chicken into the sauce before adding the white wine and cream. Season with salt. Cook the sauce for 20 to 25 minutes until it reduces and thickens. Place the egg yolk in a small bowl and add a little bit of sauce to it, mixing well. Pour this mixture back into the saucepan and whisk.

09 Carefully pour a few spoonfuls of the chicken and mushroom salpicon inside each vol-au-vent and top each one with a pastry lid. Serve as an appetiser or with some salad on the side.

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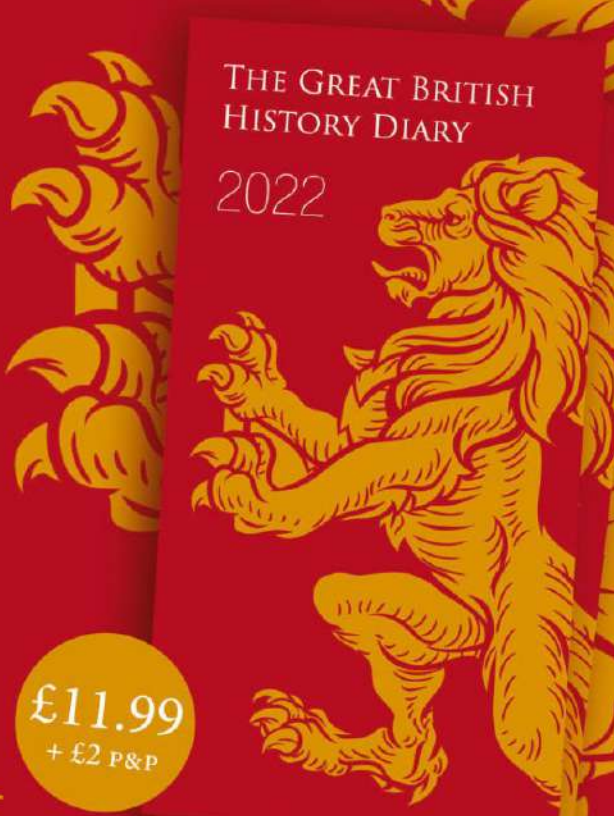

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STORYLAND

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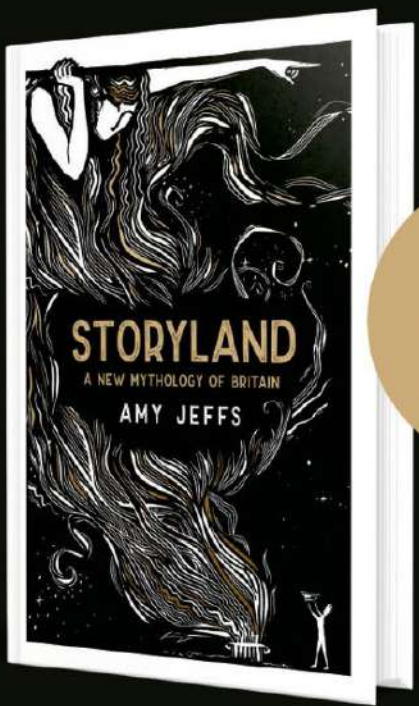

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